

LXXI (2)

OUR *Greatest Industry*

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Greatest Industry

A STORY IN PICTURES *Illustrating how Cotton Cloth is Made*



PEPPERELL MANUFACTURING COMPANY

Executive Offices: 160 STATE STREET, Boston, Massachusetts

General Sales Offices: 40 WORTH STREET, New York City

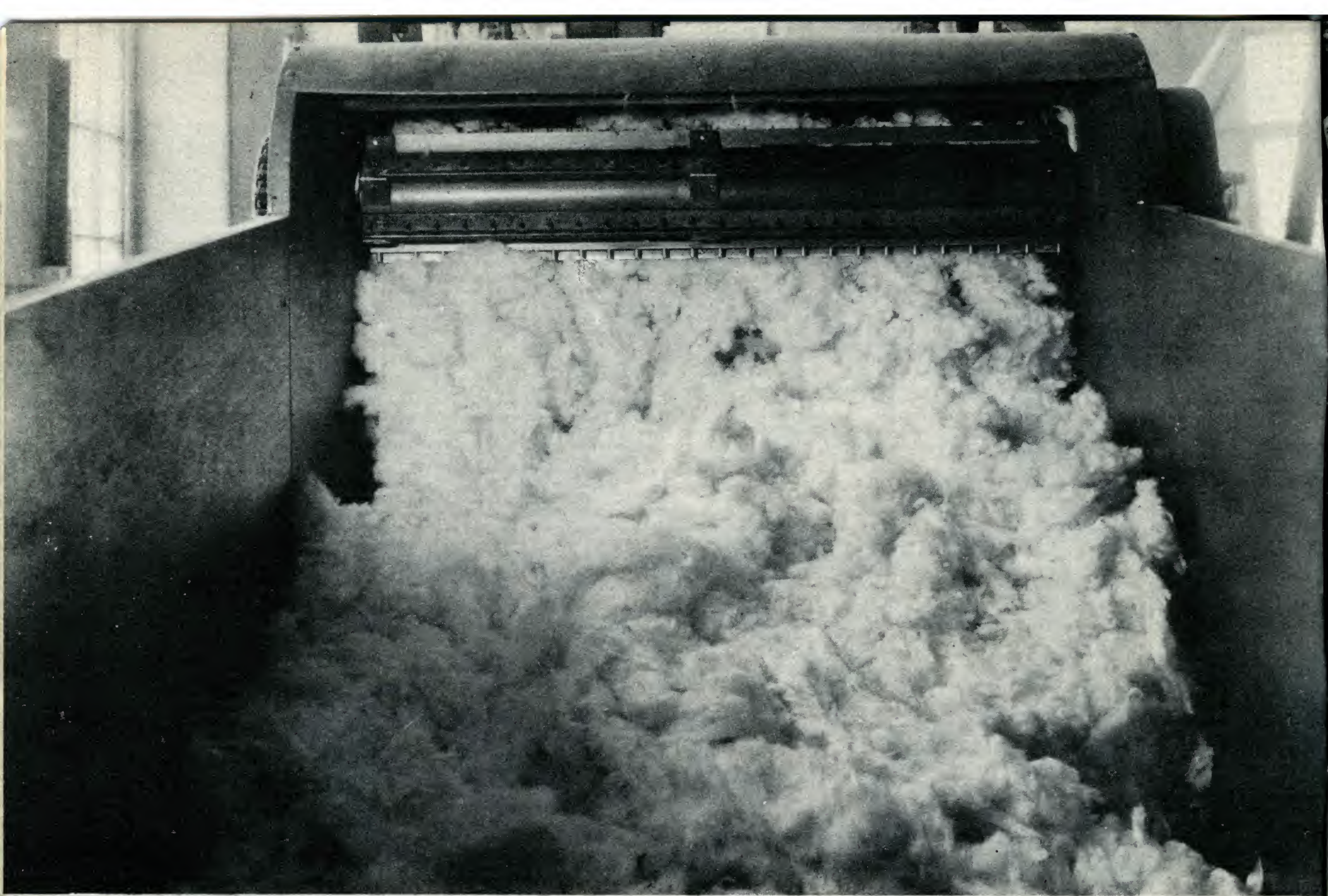


MORE people in this country are directly or indirectly engaged in the growing of cotton, the manufacture of cotton goods, or the articles from which cotton is made, than are engaged in any other single industry in this country. Cotton is the very heart of our agricultural and industrial life.

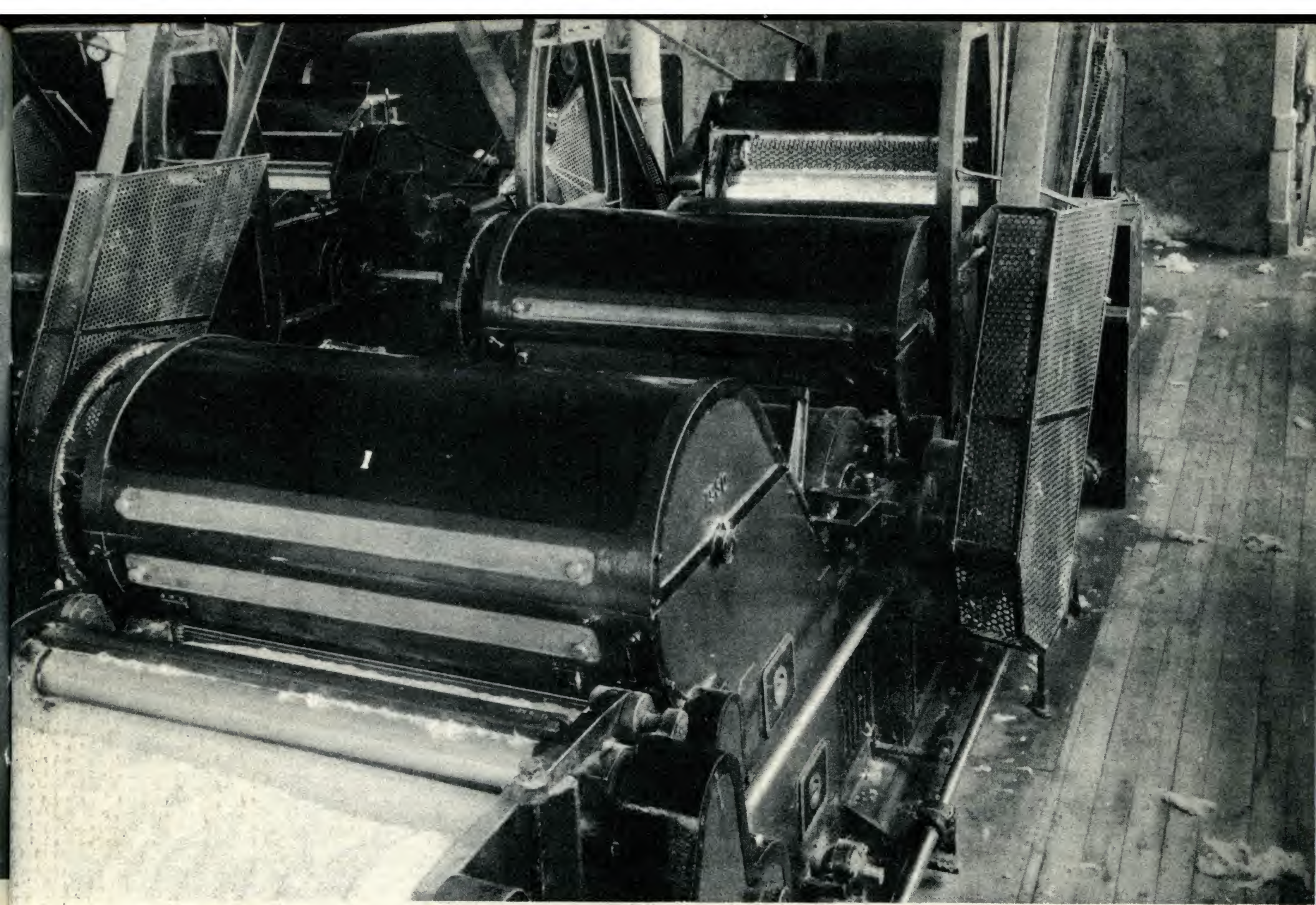
¶ This book is intended to show, within certain limits, the major processes which are required to transform cotton as it comes from the bale into actual cloth. These photographs are taken within the mills of the Pepperell Manufacturing Company, one of the largest producers of cotton goods in this country.



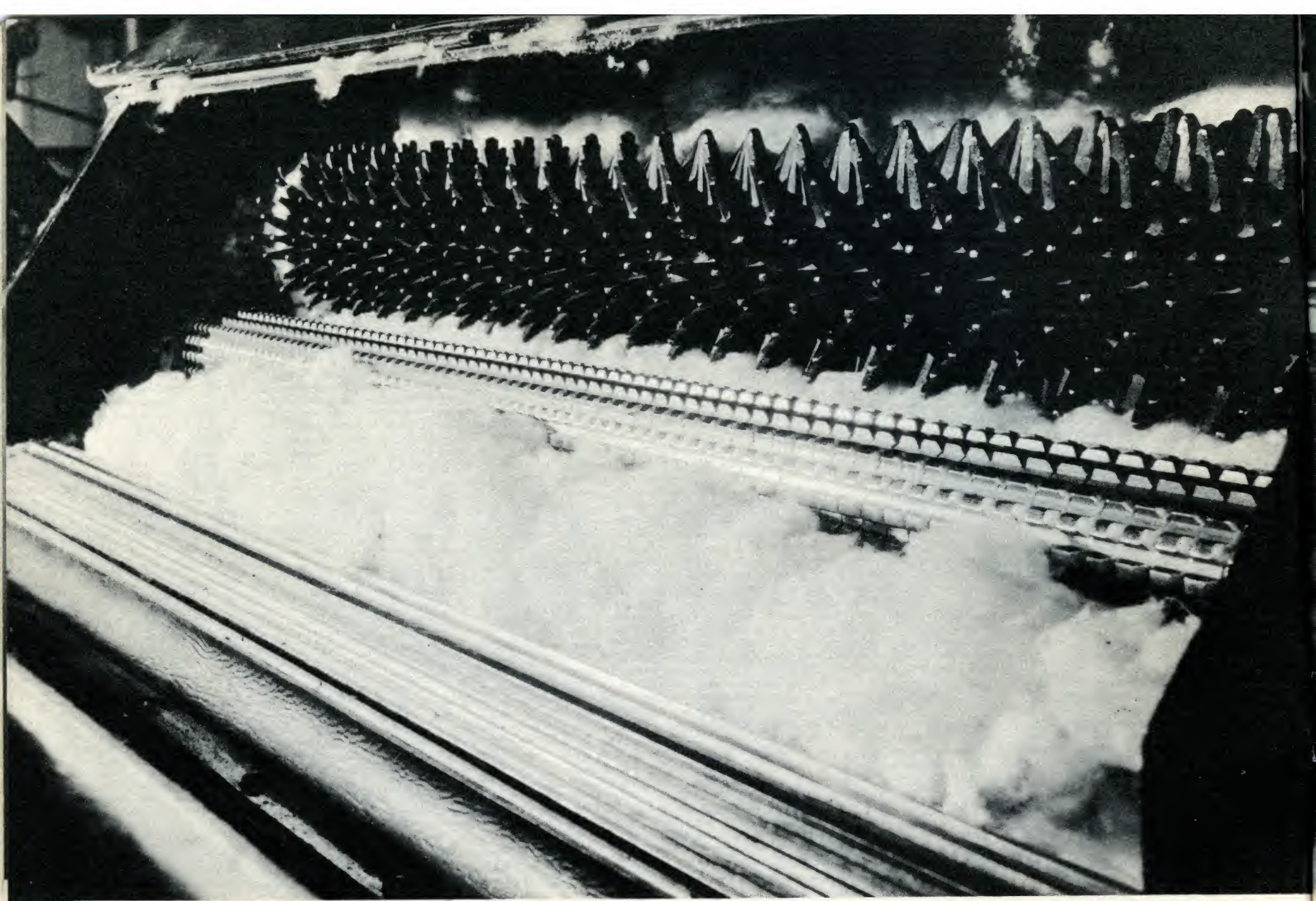
- *Here is a bin full of cotton after it has come from the bale. In this condition all the seeds and a good portion of the leaves and dirt have been removed.*



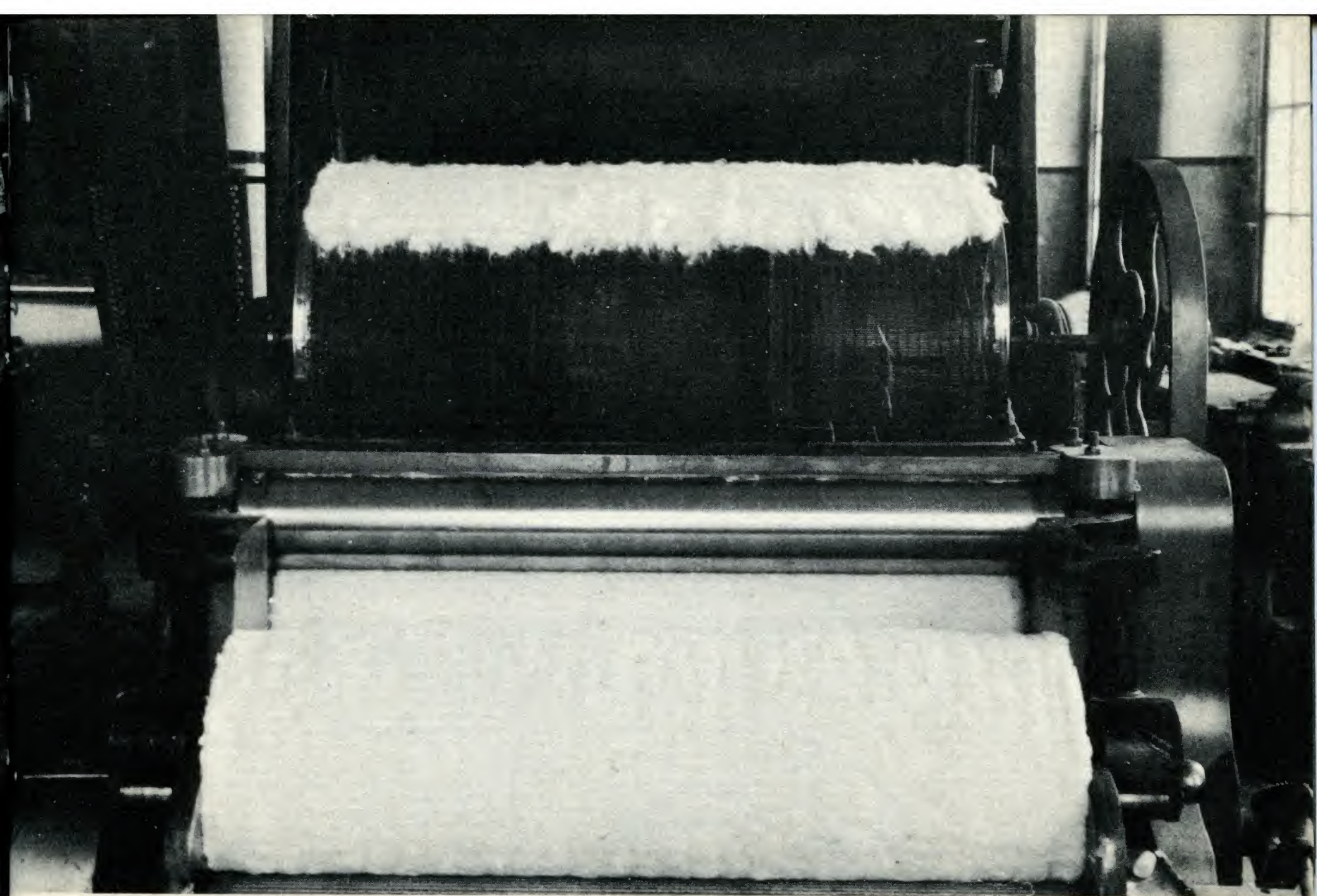
- *The same cotton placed in the receiving end of the "breaker-picker," the machine which removes more of the seeds and leaves which may be in the cotton.*



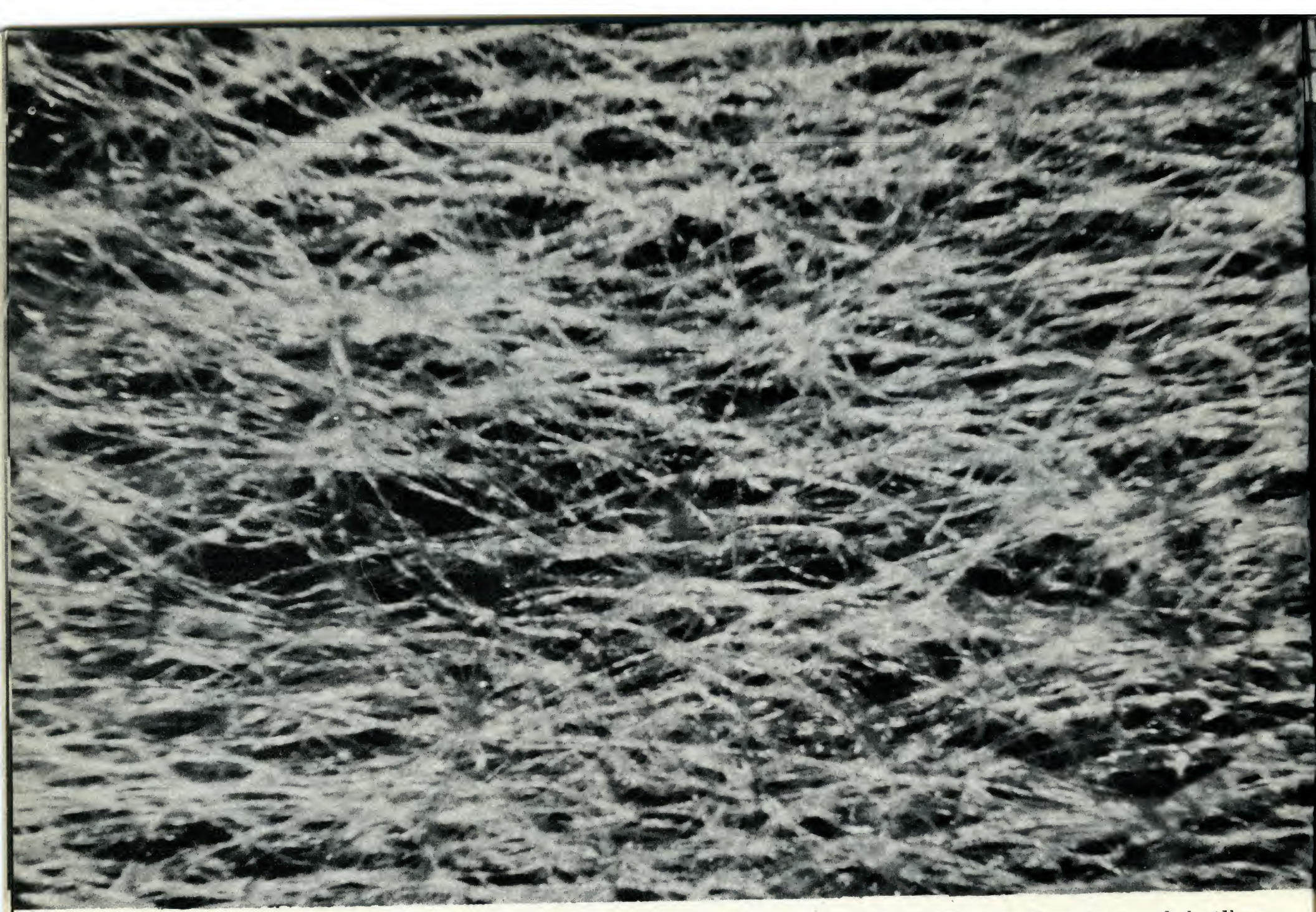
● *A full-length view of the "breaker-picker." The cotton enters at the further end and proceeds through the machine to the front of the photograph.*



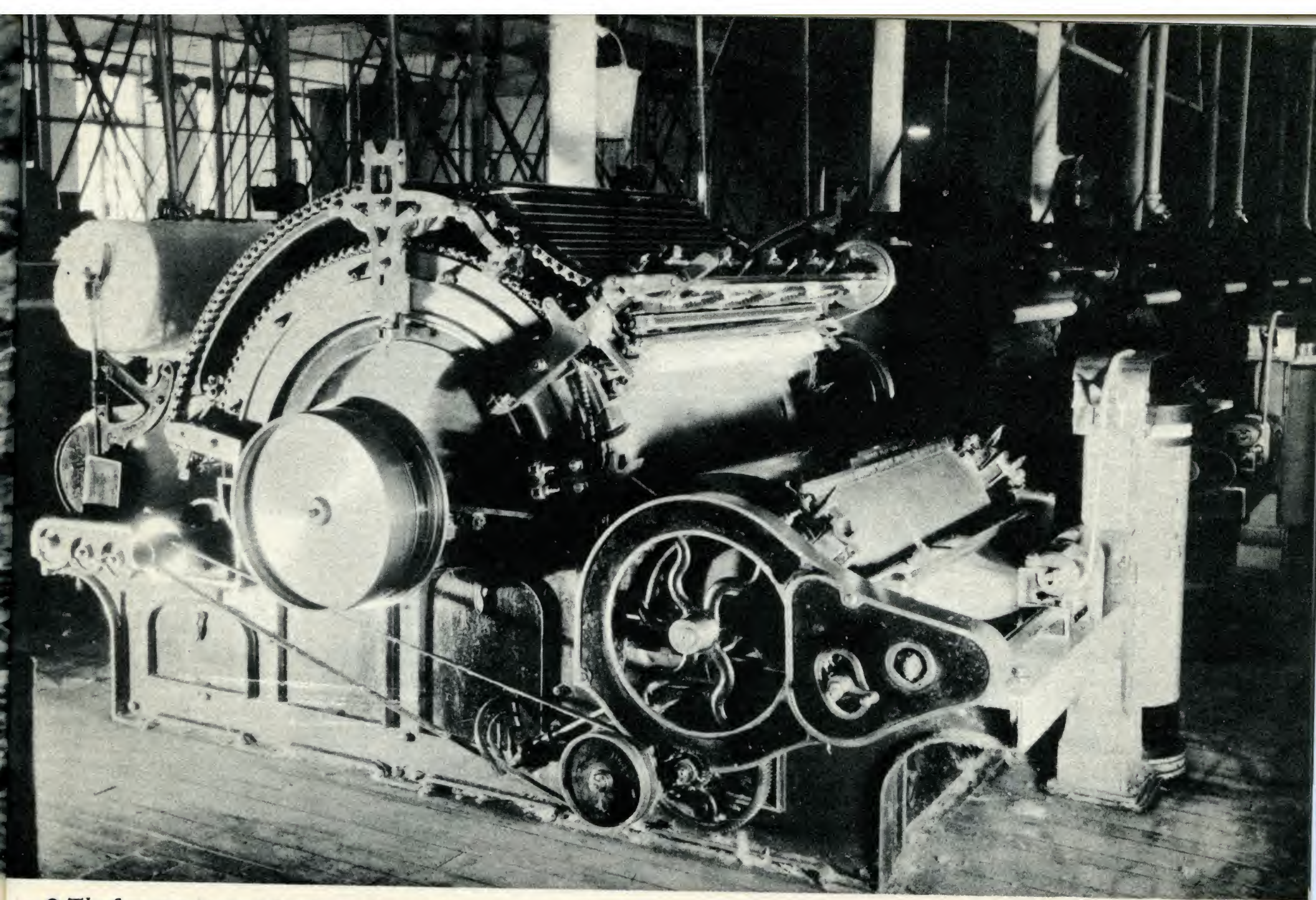
● *Close-up view of cotton half-way through the "breaker-picker." It is fluffed around by these fingers, blown about, opened up, and cleaned.*



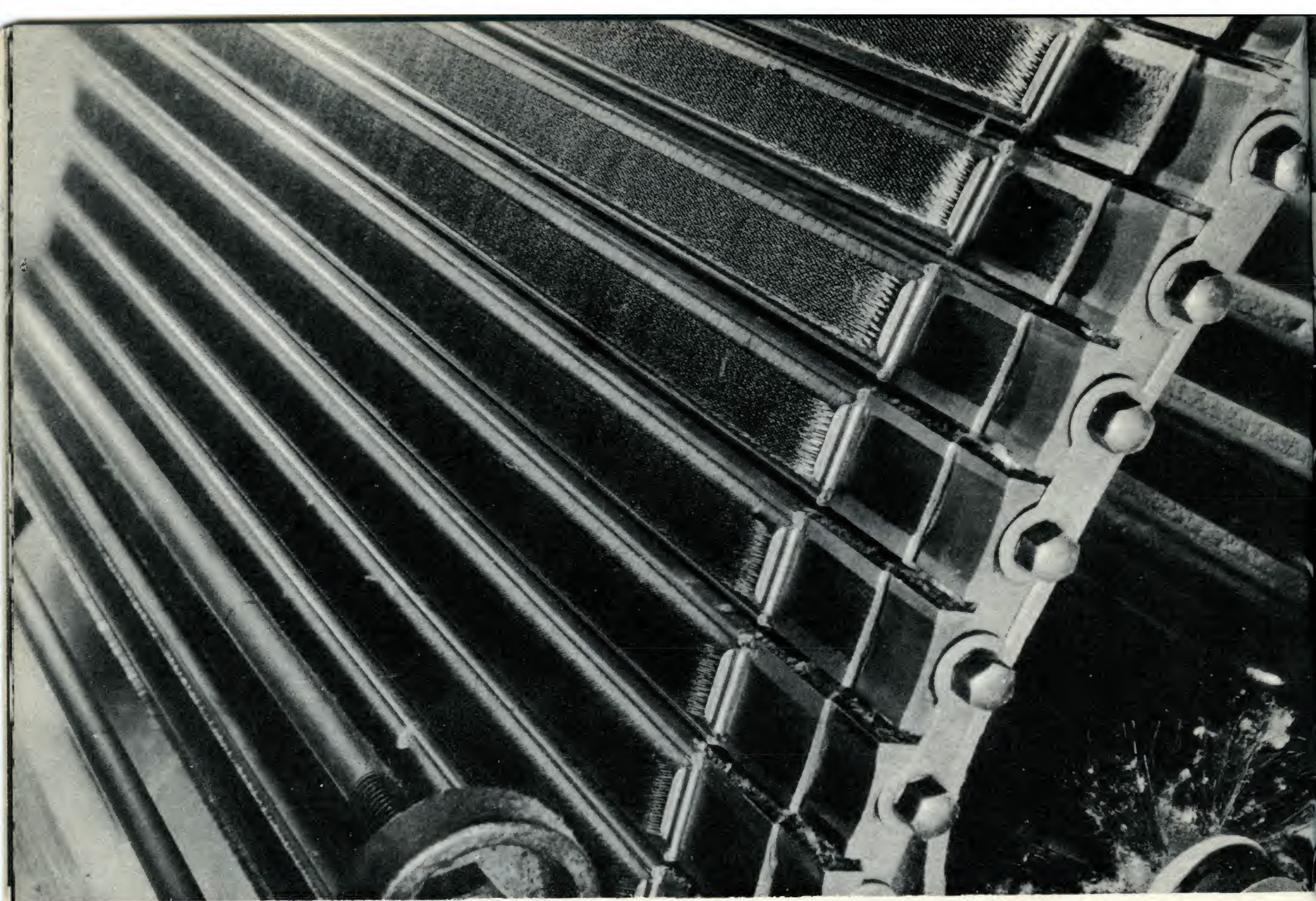
- *Cotton coming off the "breaker-picker." It is first blown against the large wire drum at the top. This revolves and a blanket of cotton comes off in the foreground, to form into a large roll.*



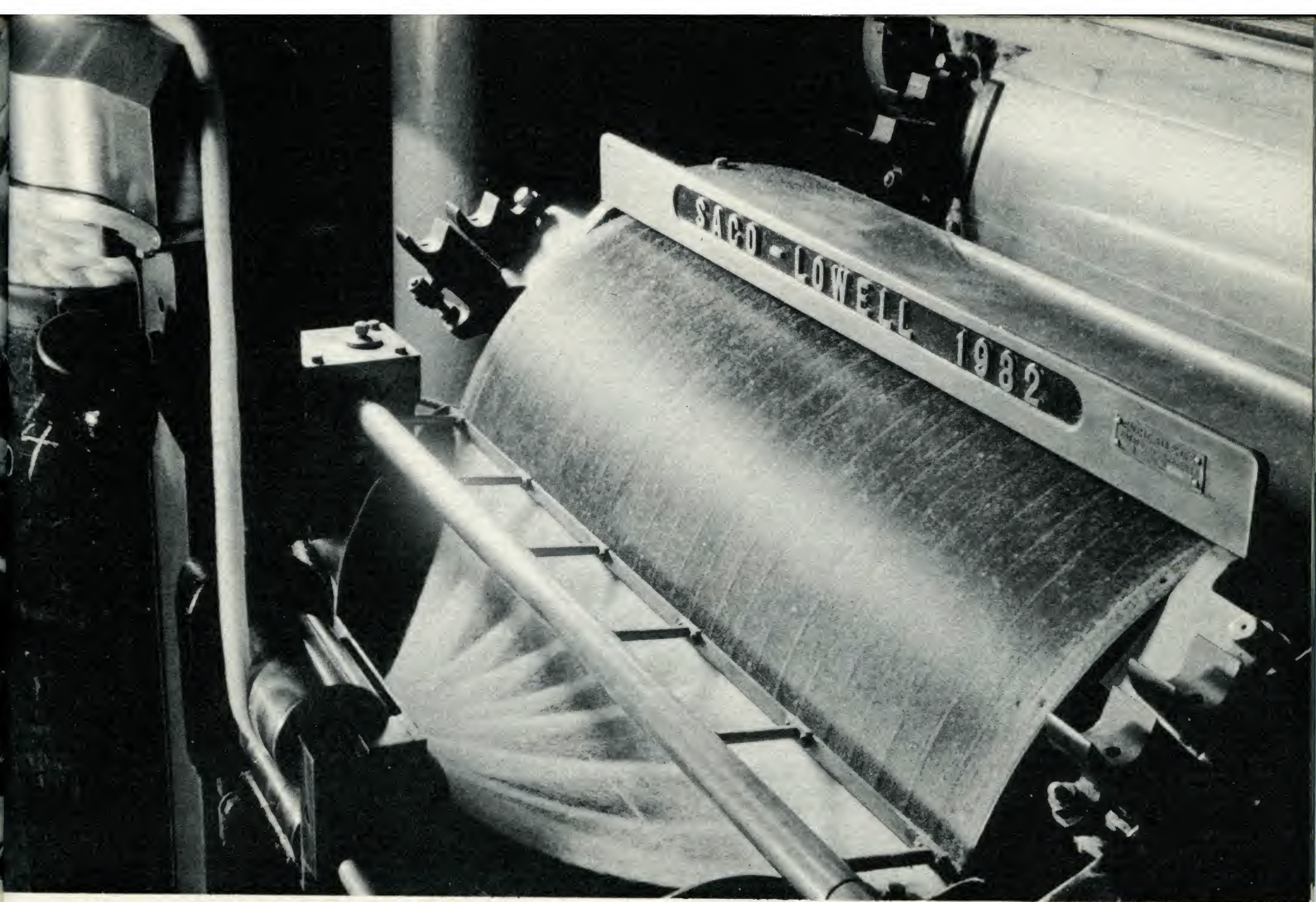
- *The microscope shows the condition of the cotton fibres after leaving the "breaker-picker." They are clean, but tangled. All succeeding processes will be devoted to straightening out these many fibres.*



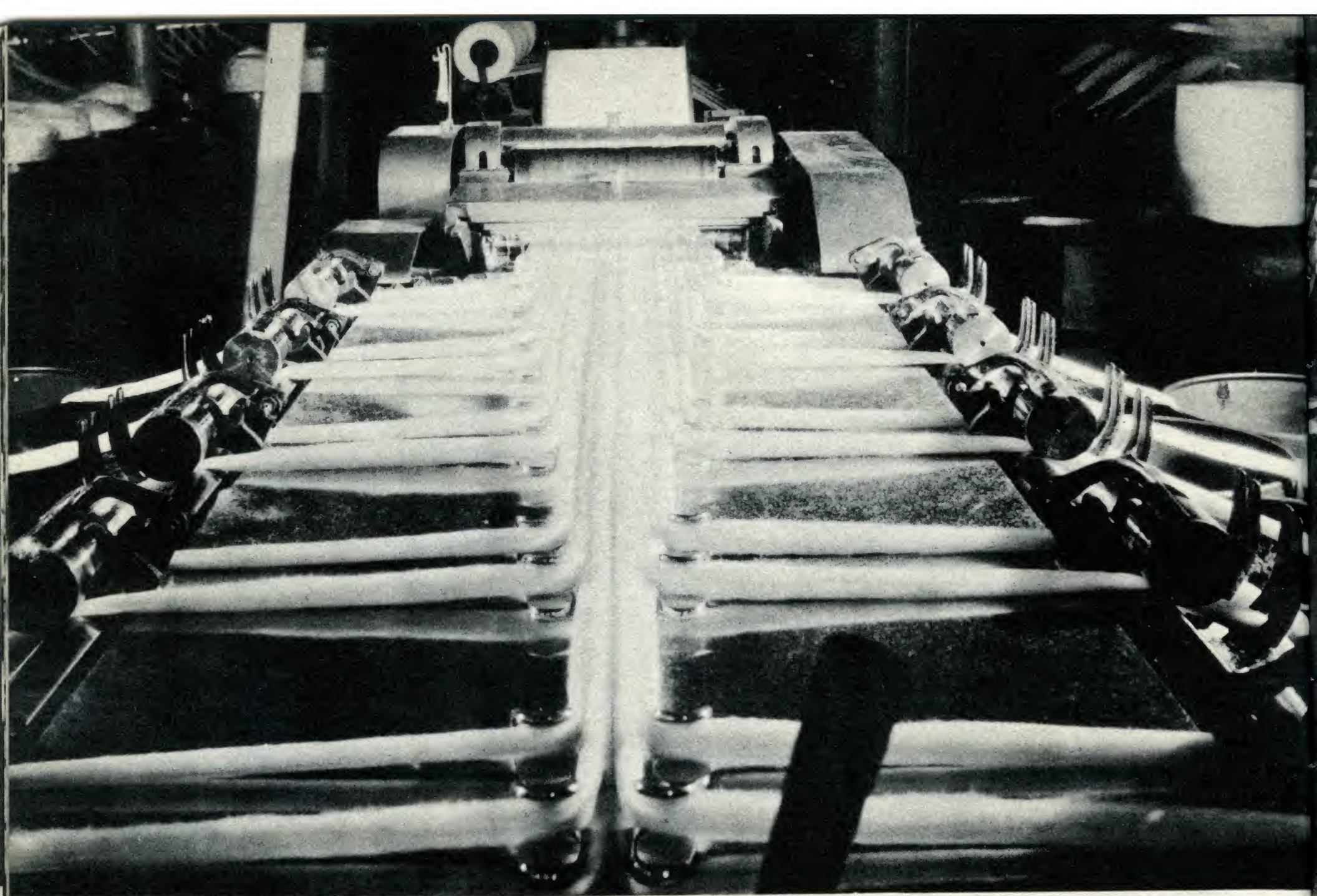
● *The first step in straightening is the carding machine. Note the large roll of cotton at the left entering the machine. This is the same roll which came off the "breaker-picker."*



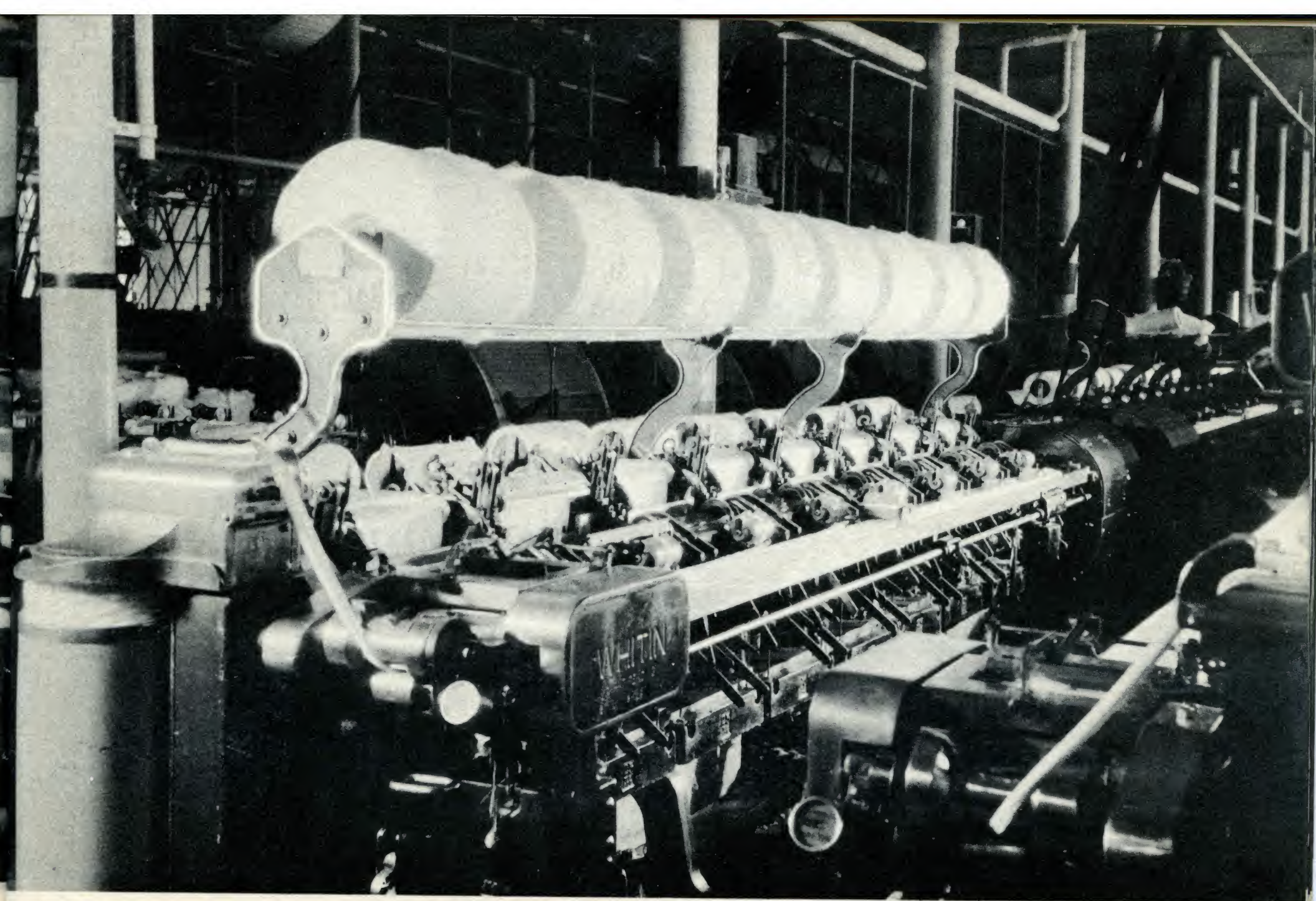
- *In the carding machine, thousands of small wire brushes pick off a very small quantity of fibres from the blanket of cotton as it proceeds through the machine. Here are a few of the brushes.*



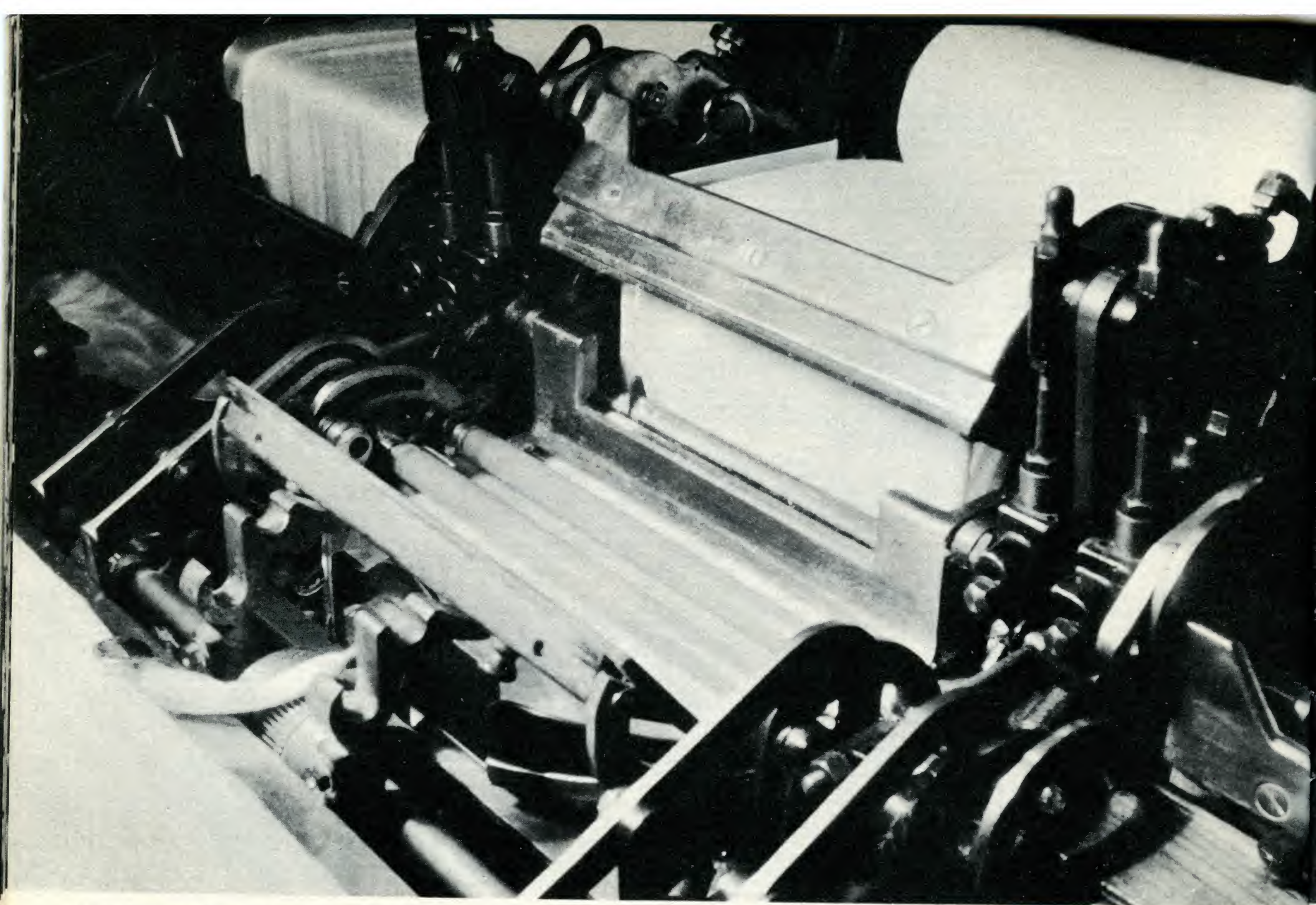
- *These thousands of fibres form a very thin film on one of the wire covered rollers. They are shaved off in a large mist-like sheet by the vibrating knife shown here. They are then rolled into a large "thread" and pass off at the left.*



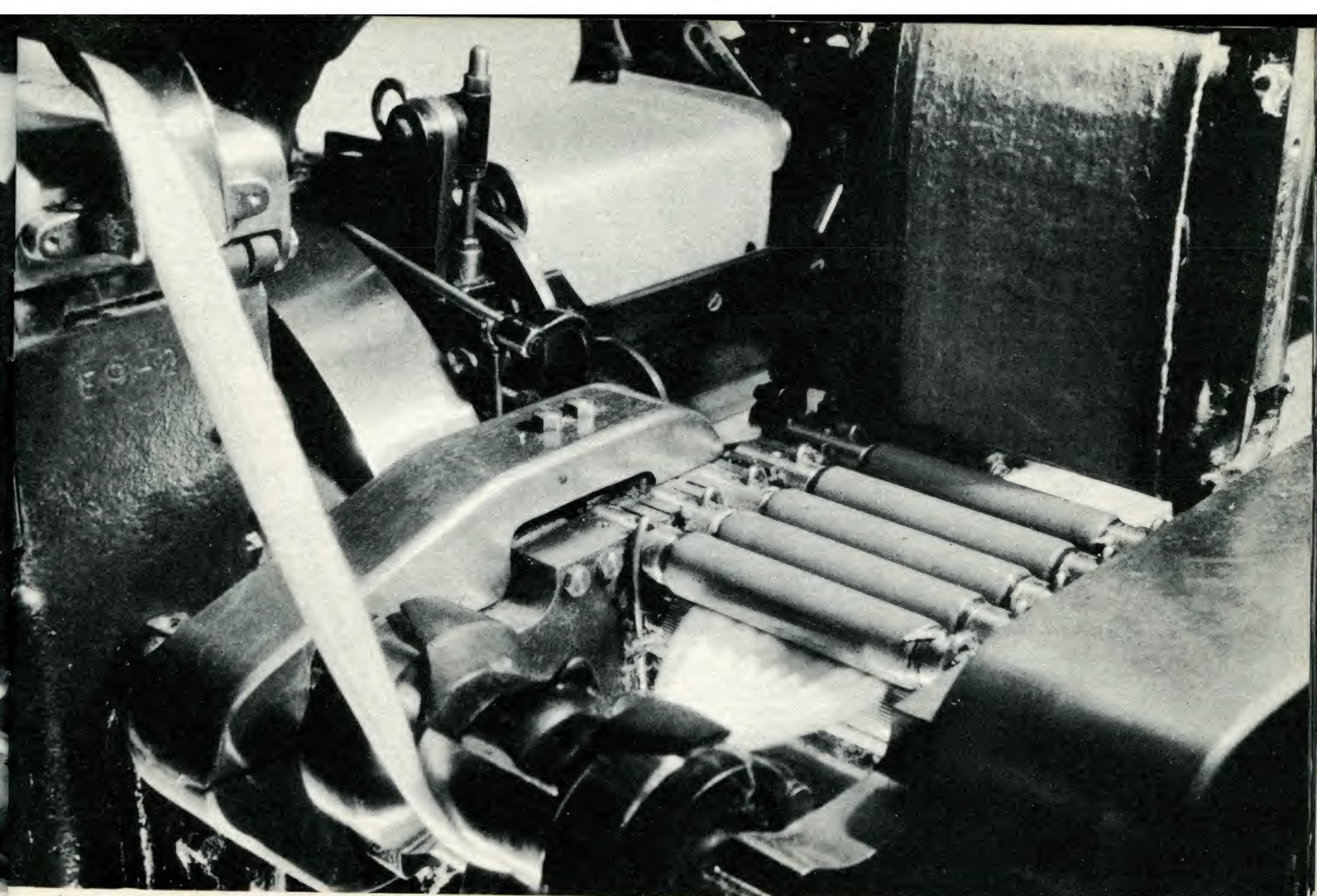
● This large "thread" is rolled into large cans. From them twenty large "threads" enter the "doubling" machine, where they are combined into a large wide blanket seen at the further end.



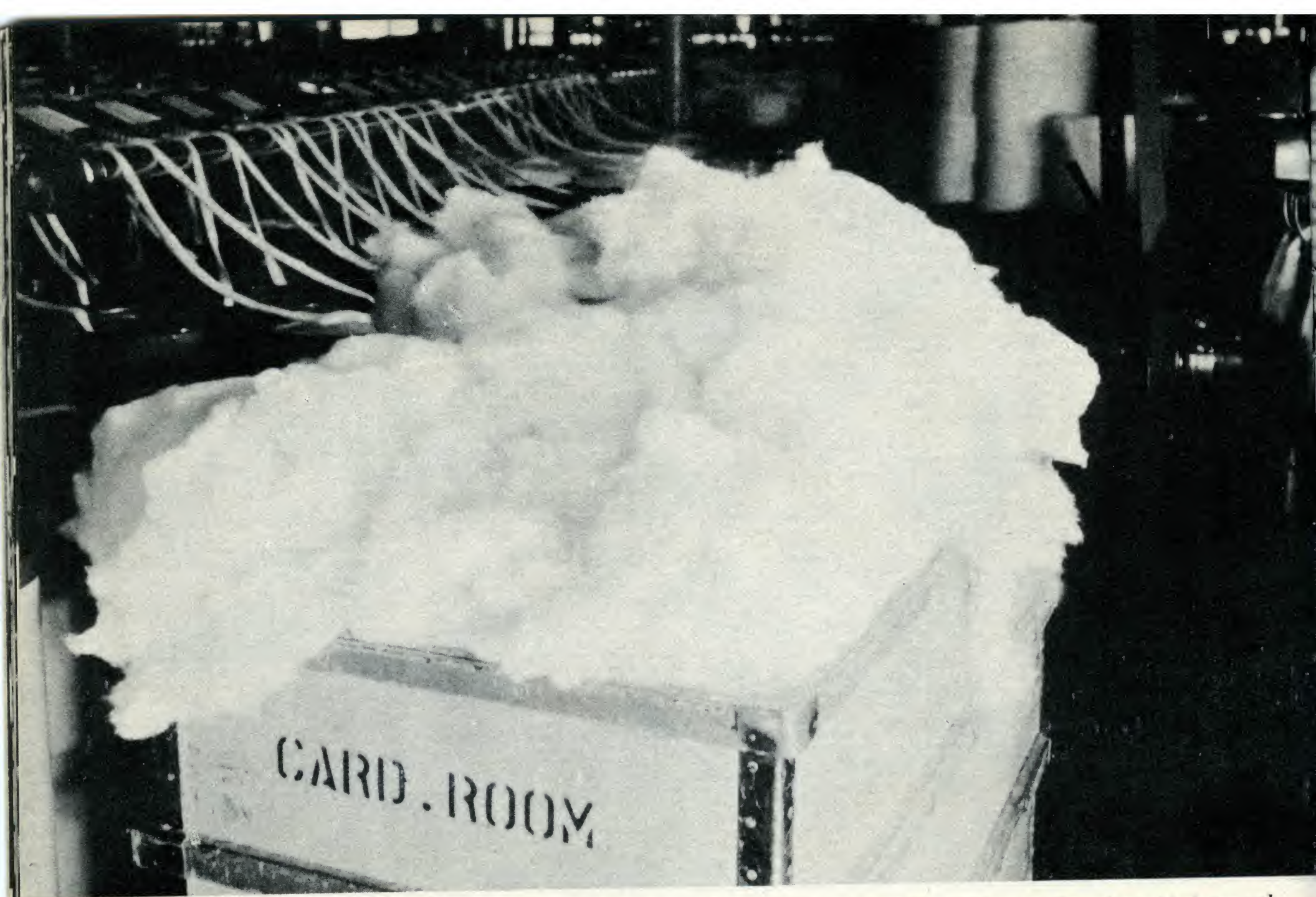
● *The large rolls from the "doubler" are placed on the combing machine. They may be seen at the top in this photograph.*



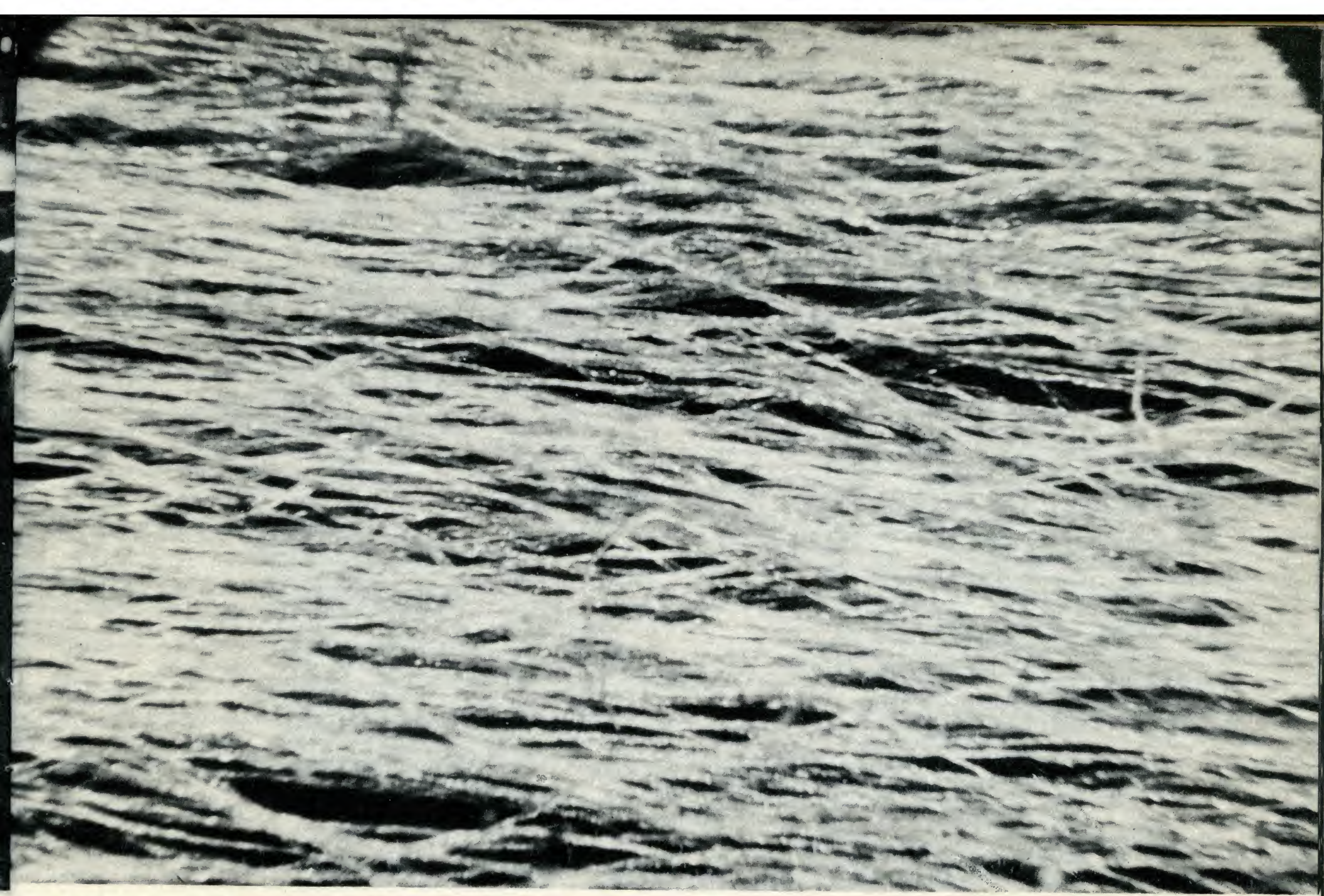
- *A close-up picture of the combing process. The wide ribbon of cotton comes down from the right. Here a large comb picks off a small section of the ribbon and combs it as would be done by hand. This removes the small fibres, leaving the strongest fibres.*



- *The ribbon comes off the combing machine under five drawing rollers. These rollers pull out the fibres so that they become more and more parallel to each other. The roller in the foreground runs faster than the next, and the last one runs the slowest.*



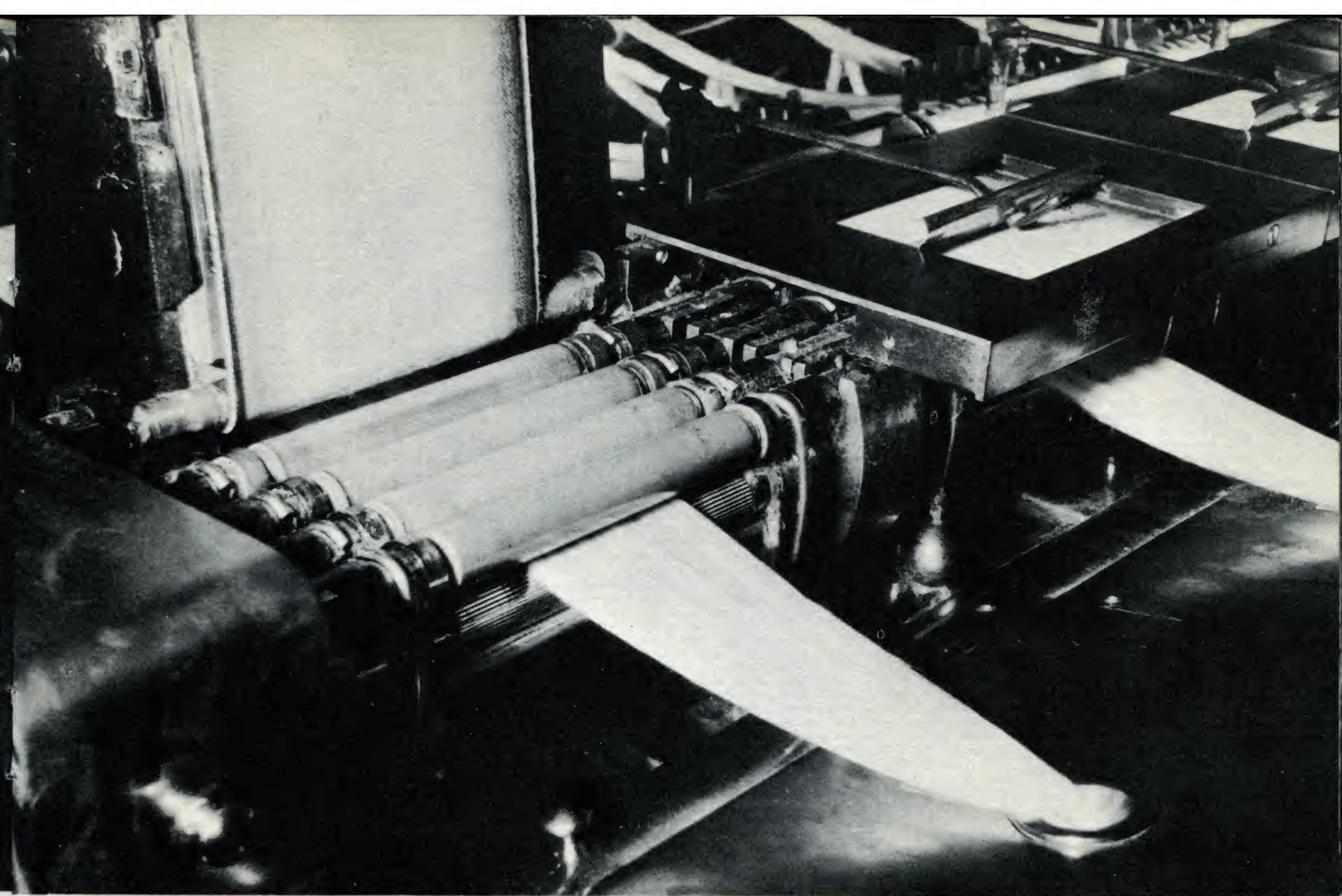
- *A truck-load of small fibres which have been removed by the combing process. These fibres are removed to give added strength and softness to the finished cloth.*



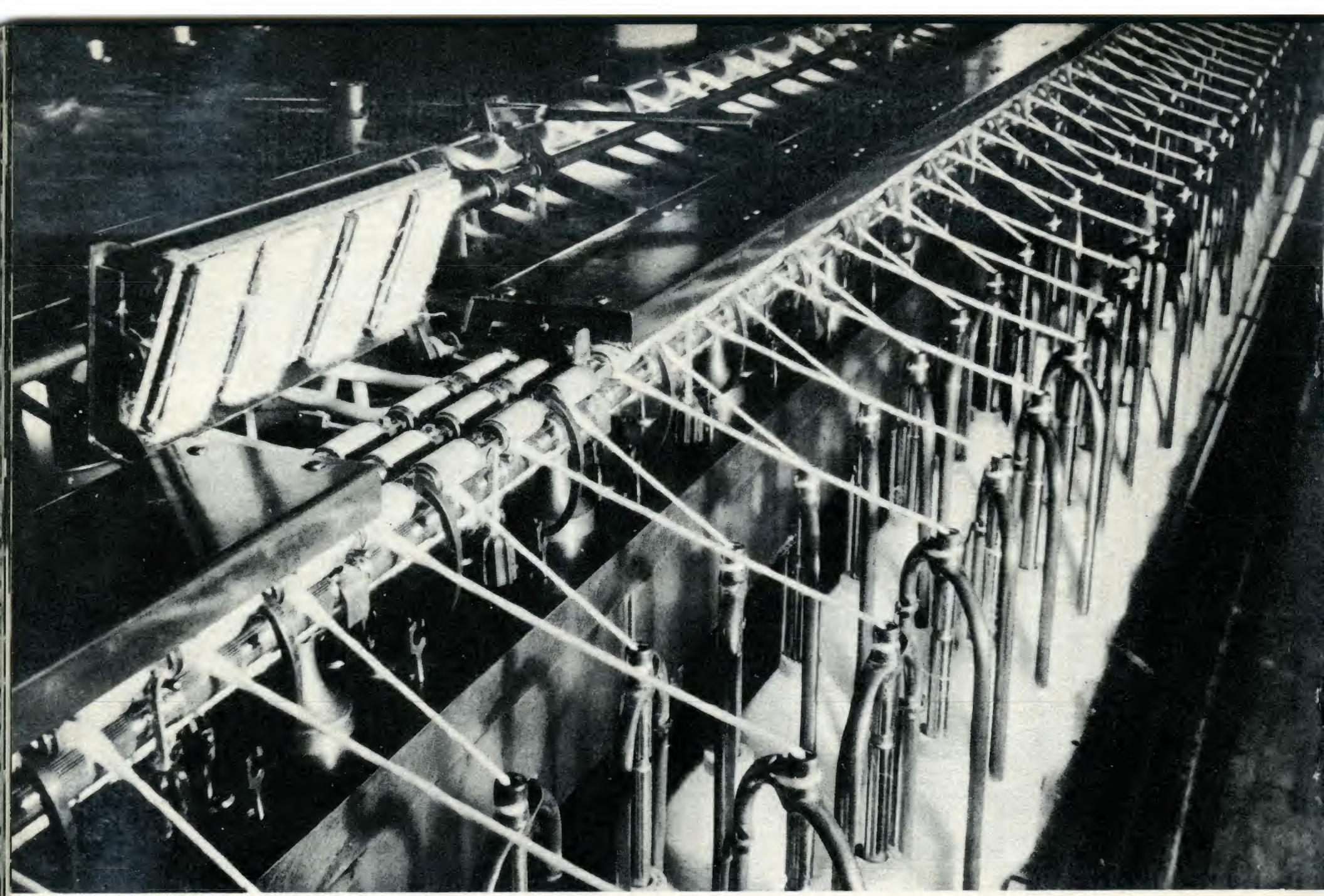
- *Here is a close-up after leaving the combing machine. The microscope shows again what is happening to the cotton fibres. Note how much straighter and more parallel they are.*



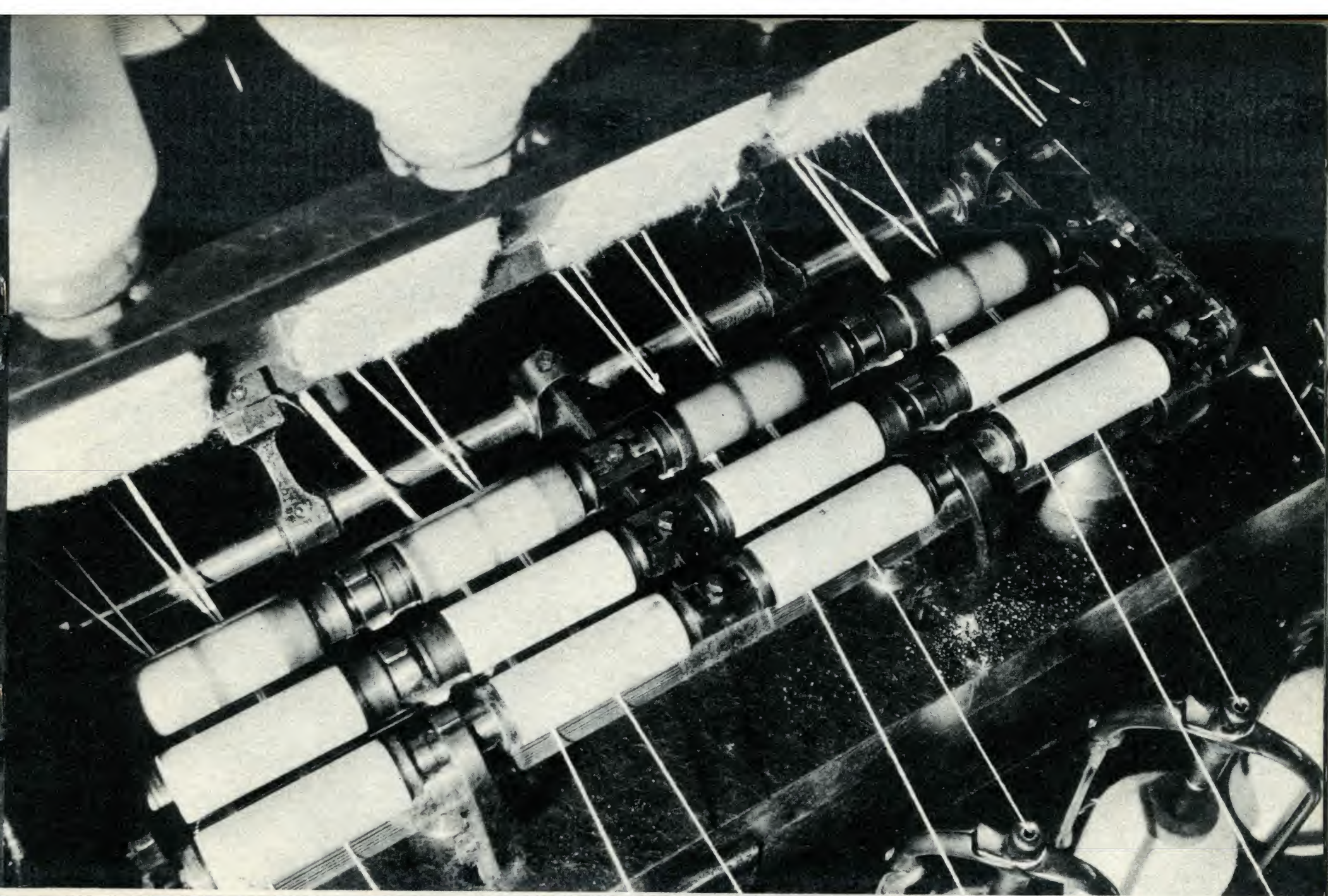
● From the combing machine, the large "thread" is wound into cans as shown in the foreground. From these cans it is entering the drawing frame.



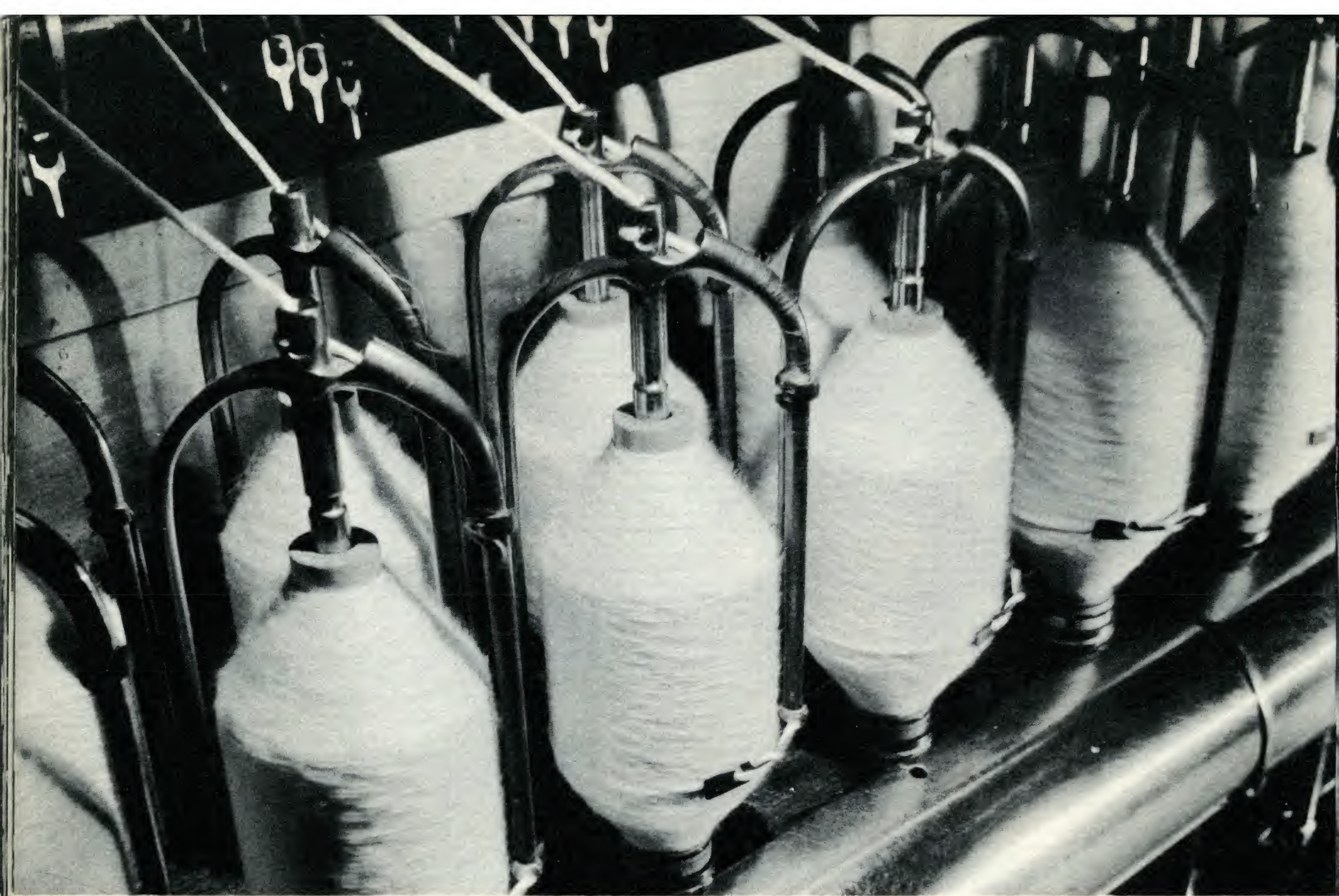
- *These rollers do the "drawing." The nearest one turns faster than the next, and this in turn revolves faster than the next. By this means the cotton fibres are pulled out and made increasingly parallel to each other.*



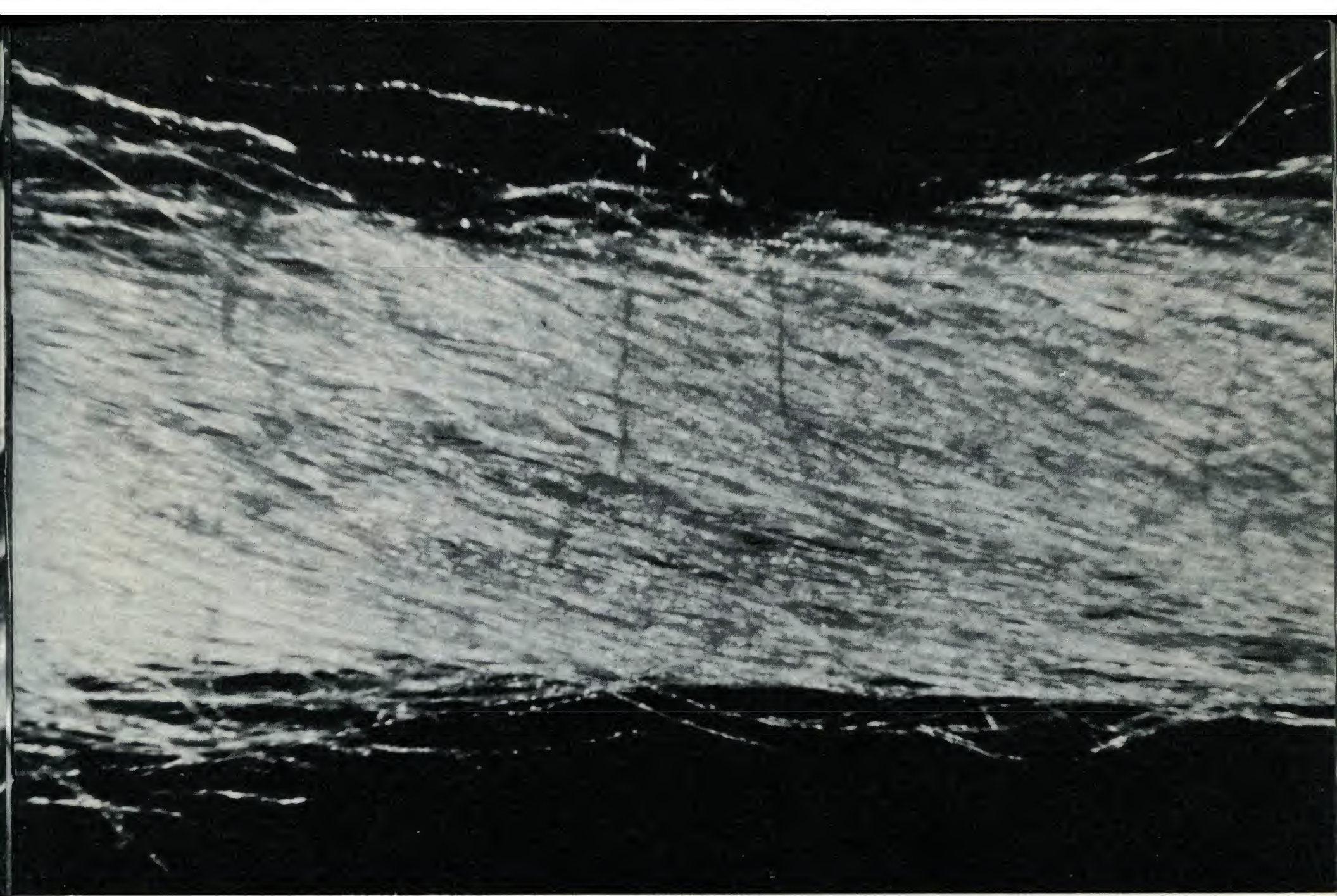
● From the drawing frames the large thread goes to the "slubbers." It is "drawn" by the small rollers at the left, then passes down to the spindles where it is twisted and wound.



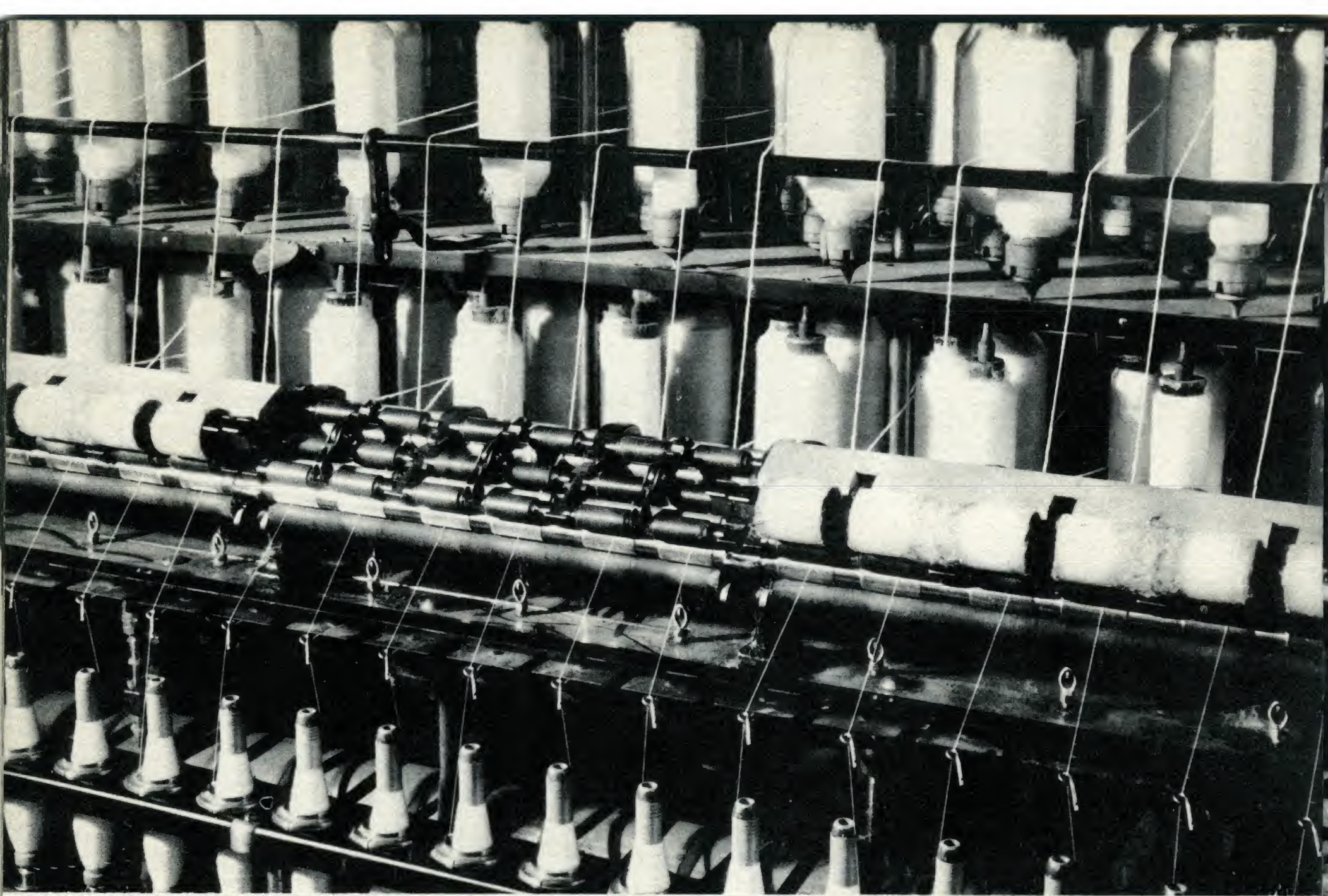
● A close-up of the "drawing" process as the "thread" enters the "intermediates." This process continually draws the cotton fibres closer together and more parallel.



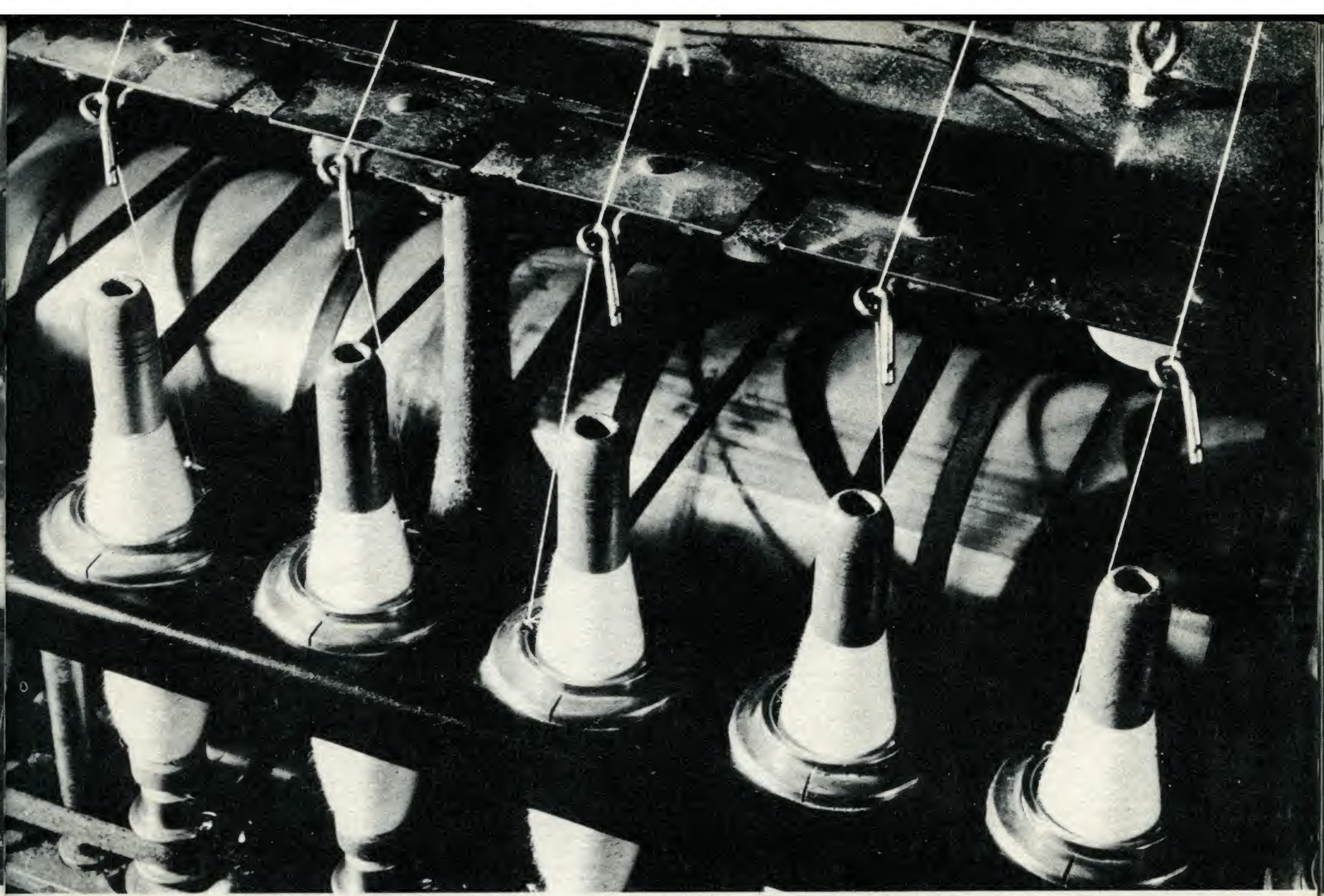
● *This close-up of the spindles shows how the large "thread" passes into the top of the spindle, down the side and is then given a twist as it is wound onto the spindle.*



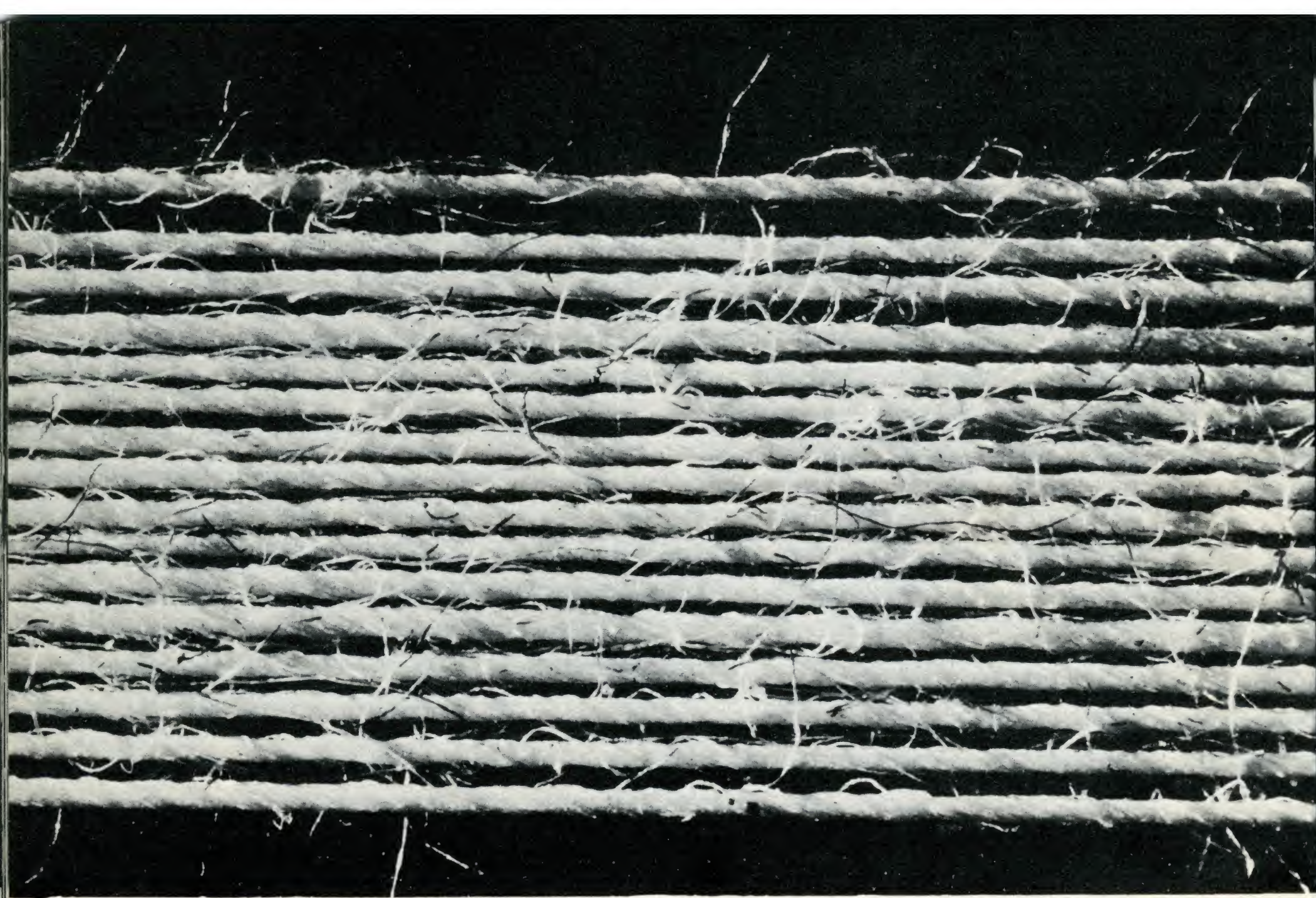
- *The microscope shows the cotton as it comes off the "intermediates." The fibres are drawn out closely together and the first twist is seen. Subsequent processes will "draw" this even more, and increase the twist.*



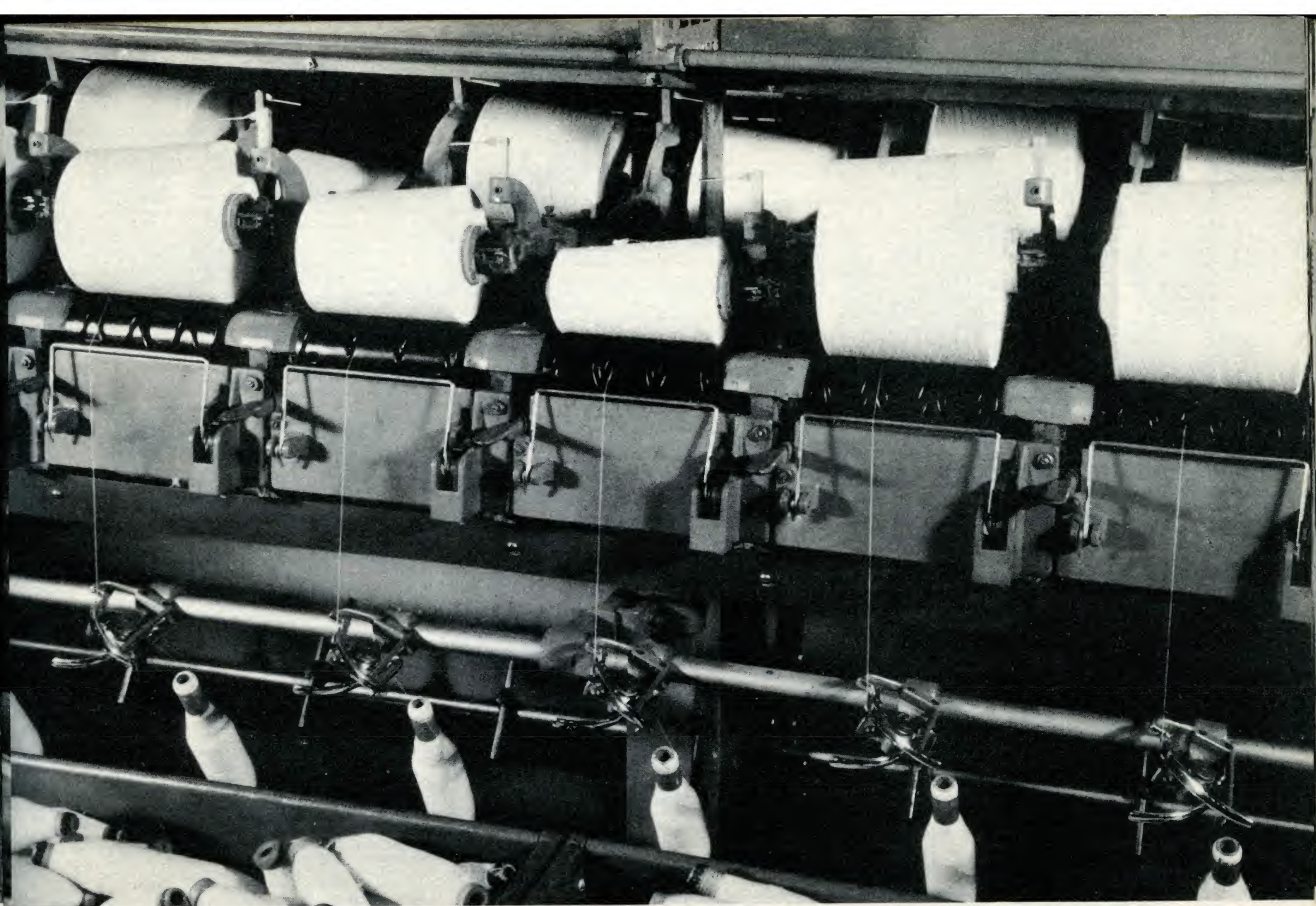
● *The spindles are then placed on a spinning frame, as shown at the top of the photo. The "thread" is drawn again on the three small rollers, passing down to the bobbins where it receives additional twist.*



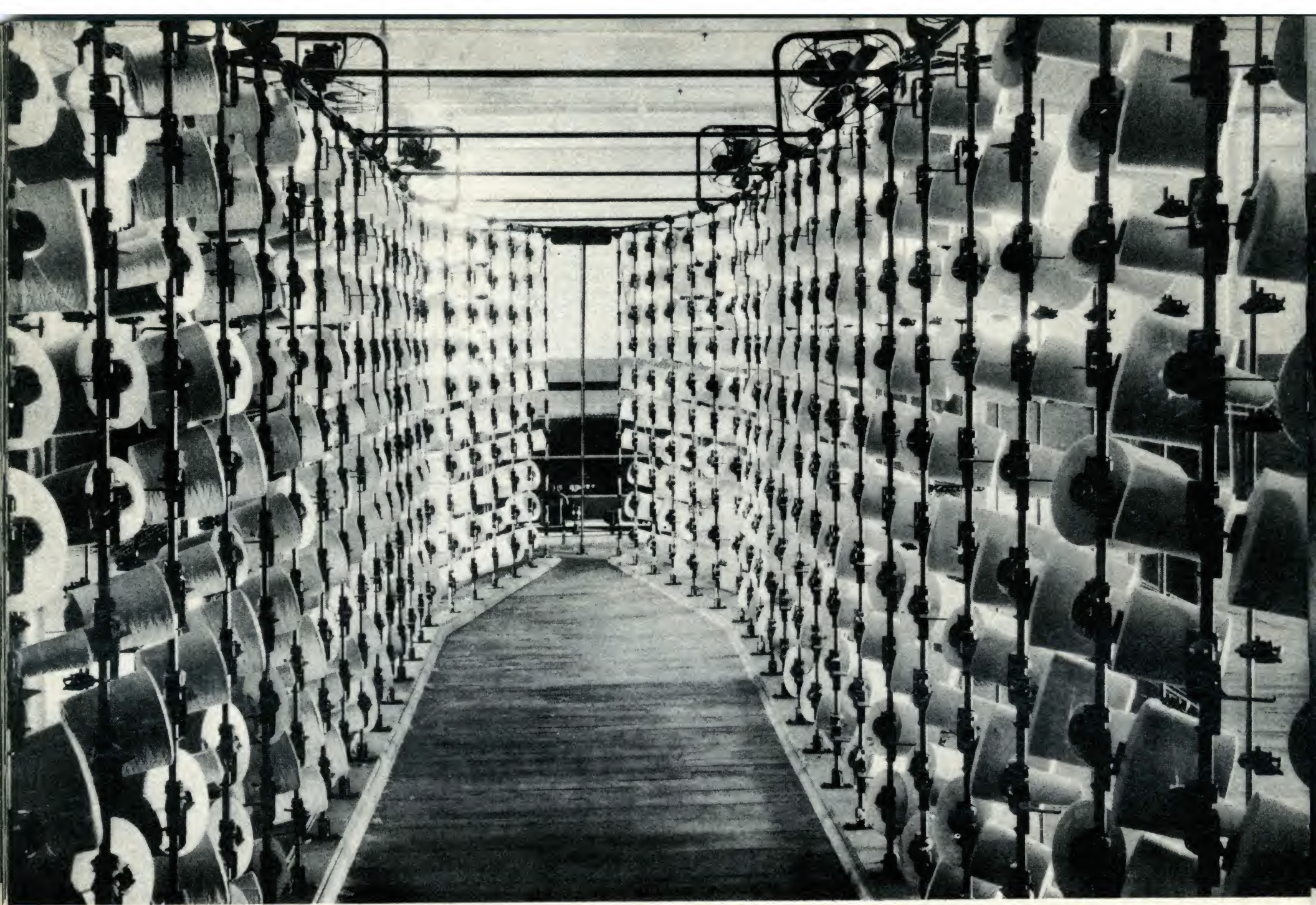
● *This close-up of the bobbins shows the "thread" going onto them through a small ring which twists the yarn as it is wound onto the bobbin.*



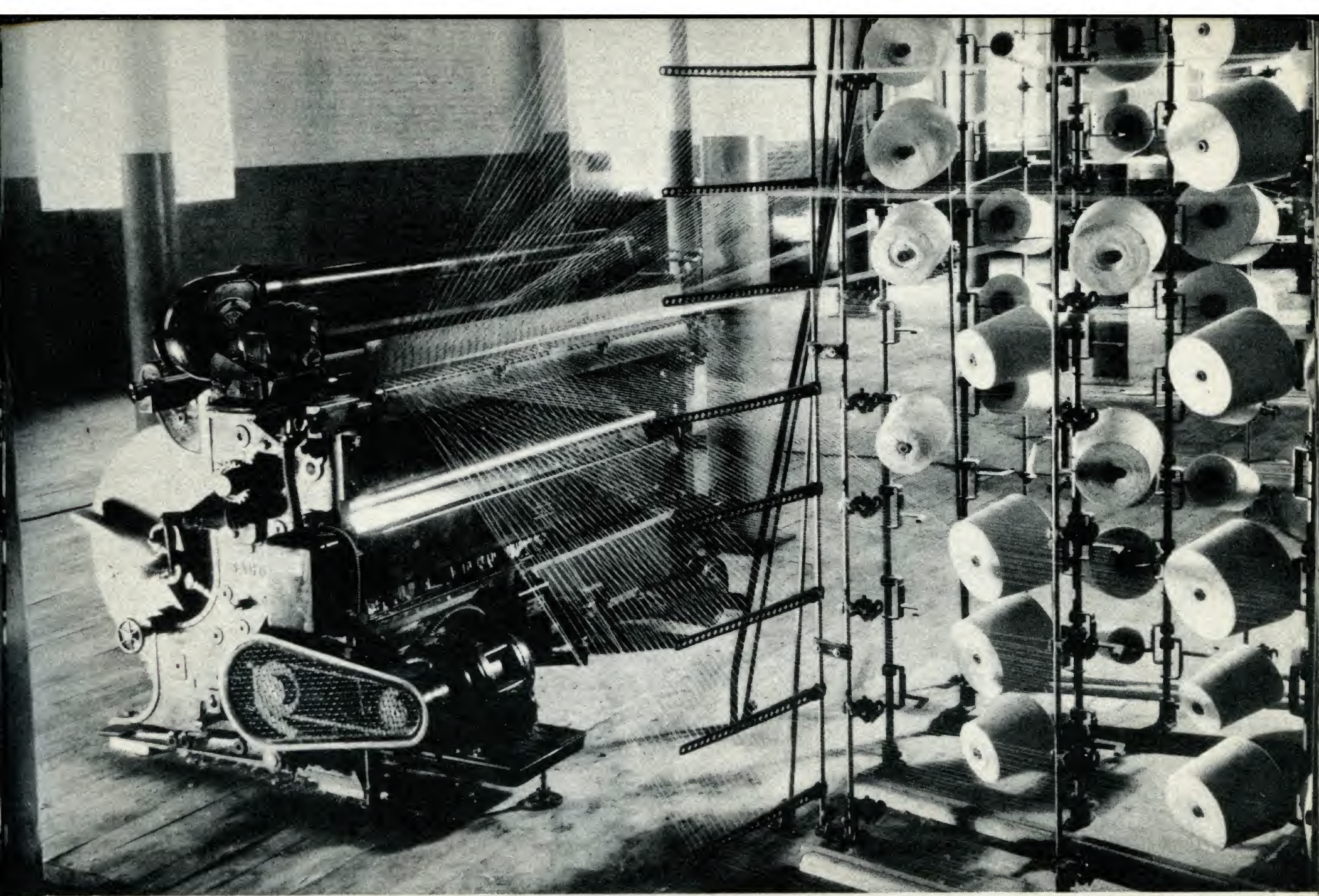
- *Again the microscope indicates that the large "thread" is now becoming yarn, ready for weaving. First, however, this yarn must be put into a form convenient to handle.*



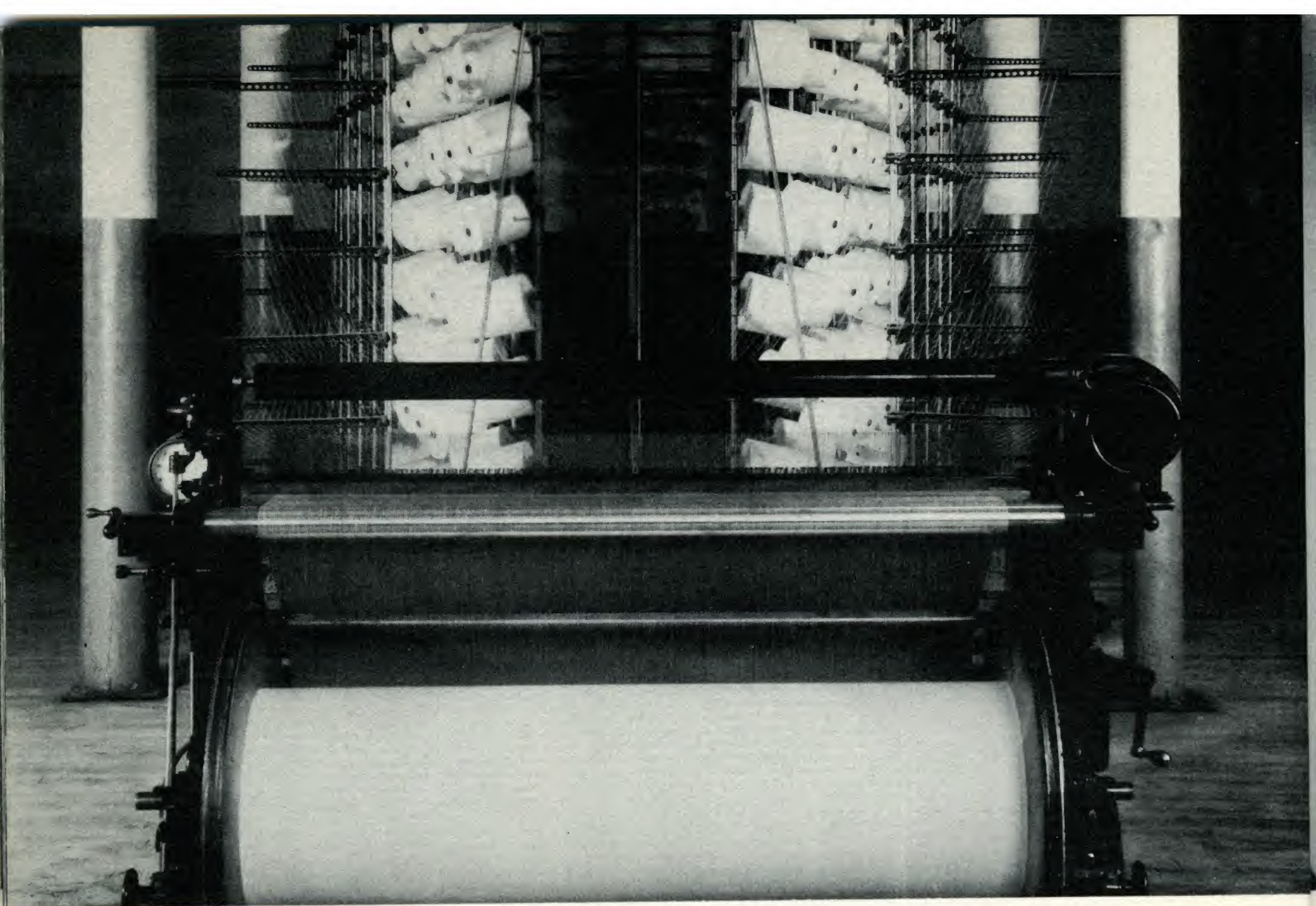
● So it is wound from the bobbins onto large spools in order that these spools may be placed in the machine shown in the next photograph, from which the warp or lengthwise threads will come.



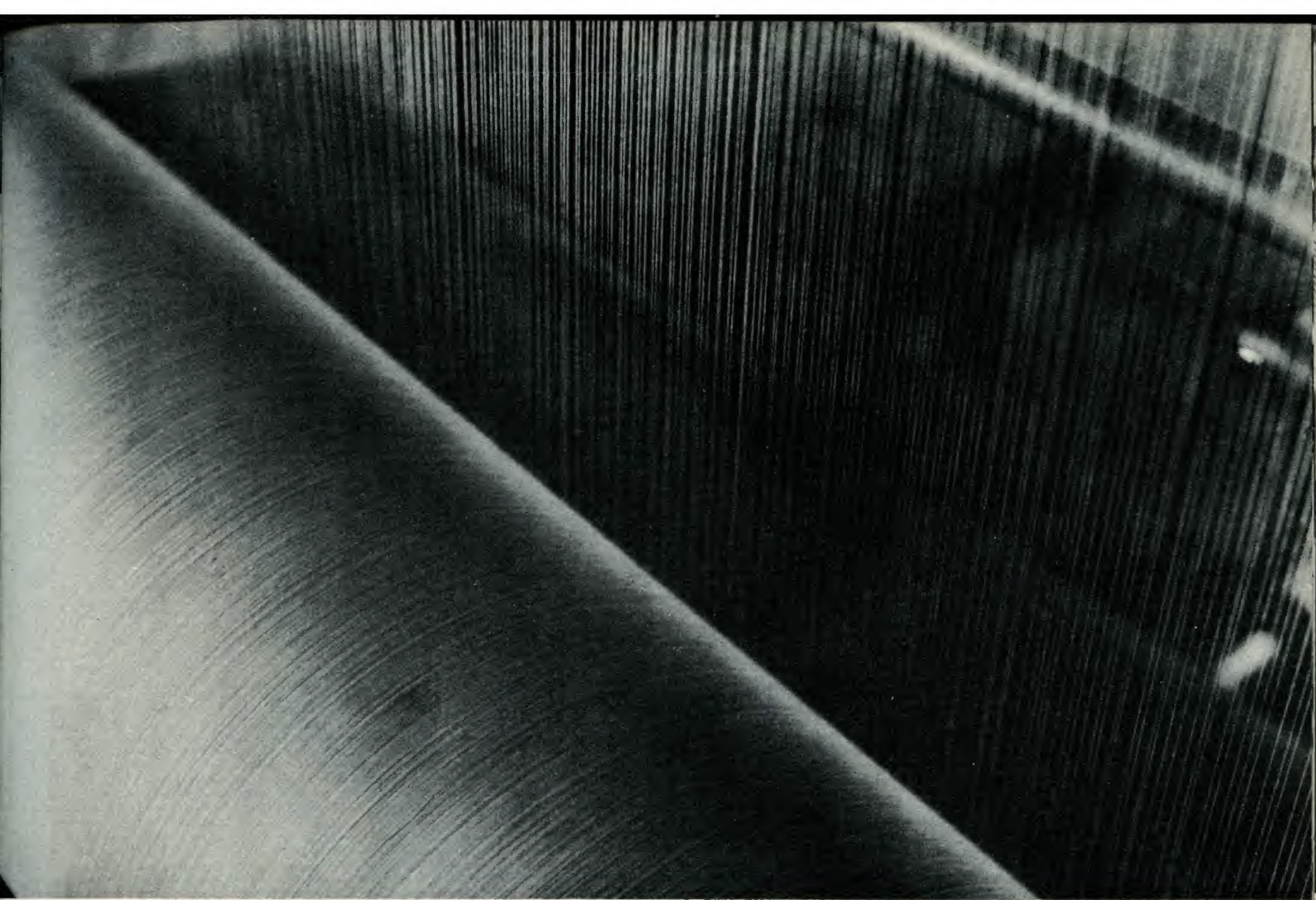
● *This large rack or "creel" carries all the warp threads. All the spools are unwound together onto a large roll or "beam."*



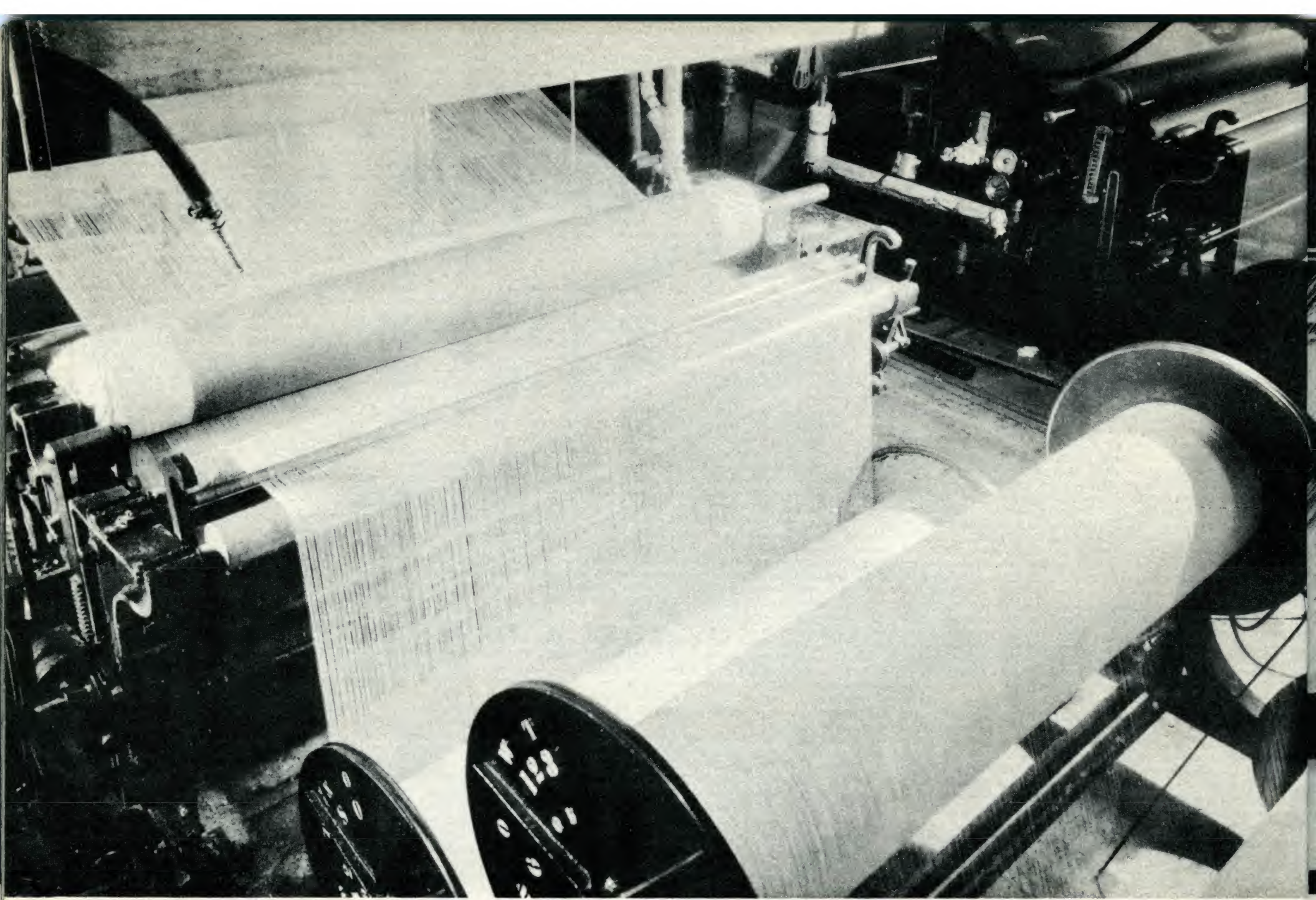
● A side view of the threads as they are unwound from the small spools onto the large beam.



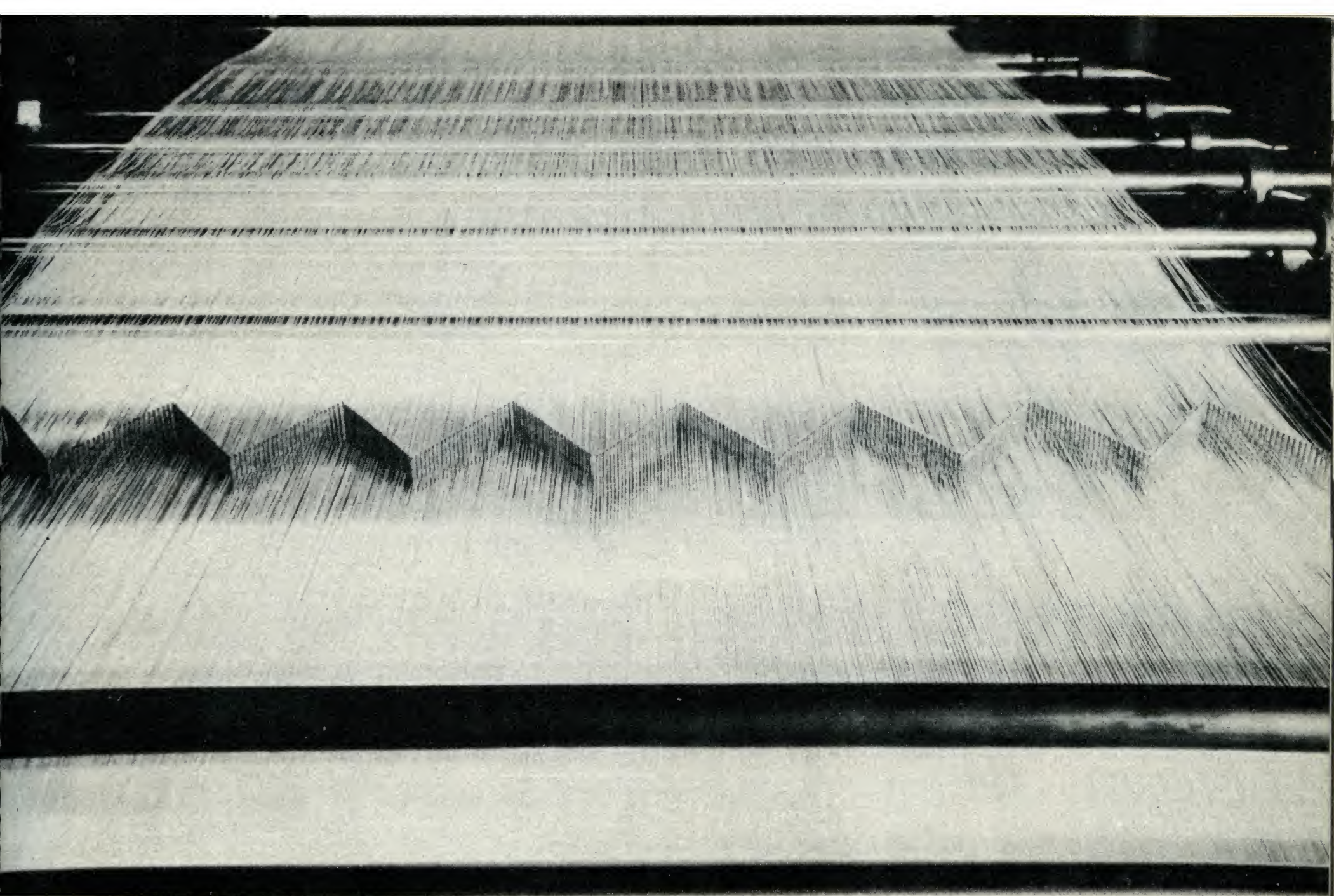
● *Another view of the "creel." The threads are passing toward the front of the photograph, about two thousand of them altogether, and are being wound on the large beam in the foreground.*



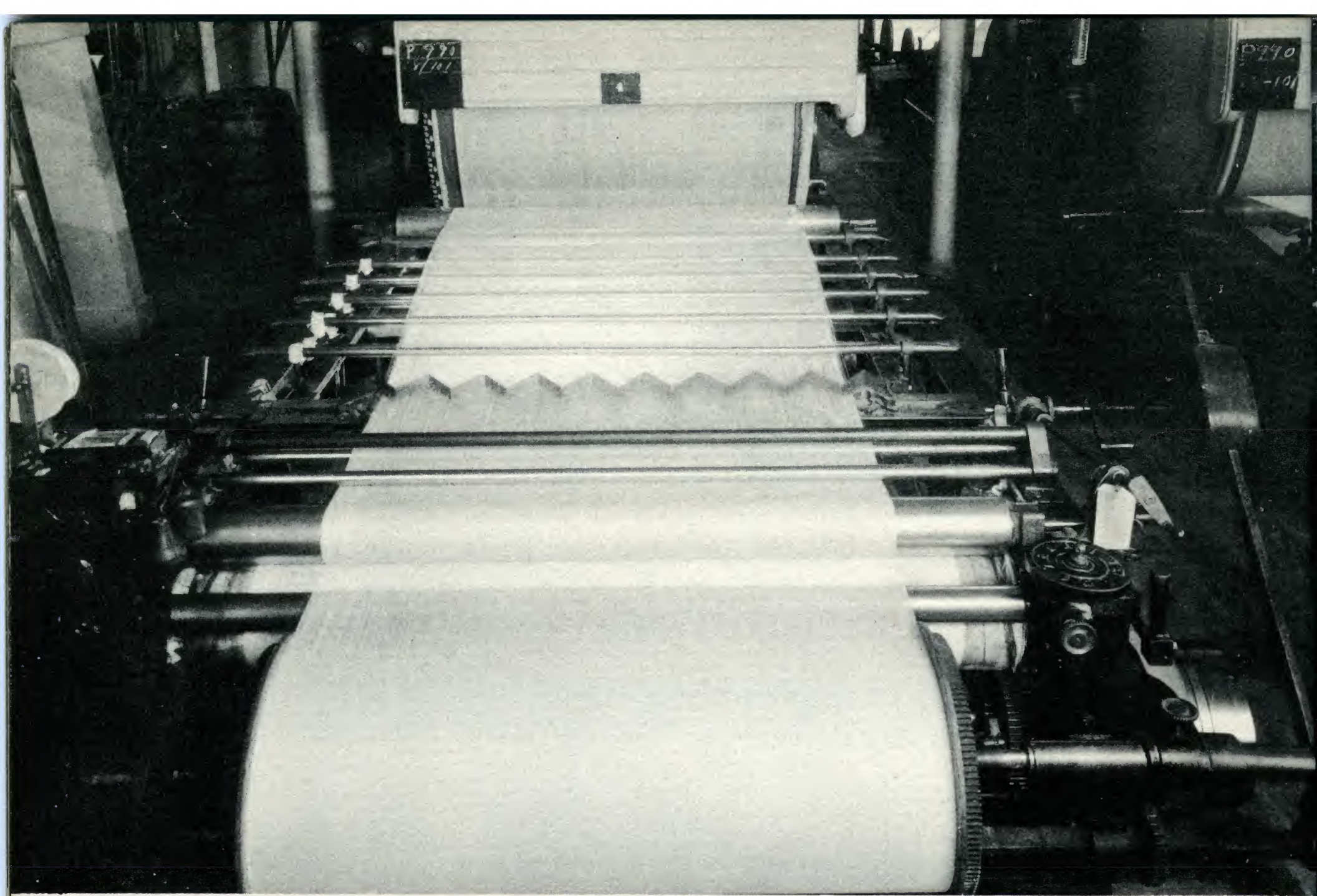
- *This photograph gives a good idea of the great number of threads which must be wound together. They are evenly spaced apart, held at the correct tension while the large beam revolves at a rapid rate.*



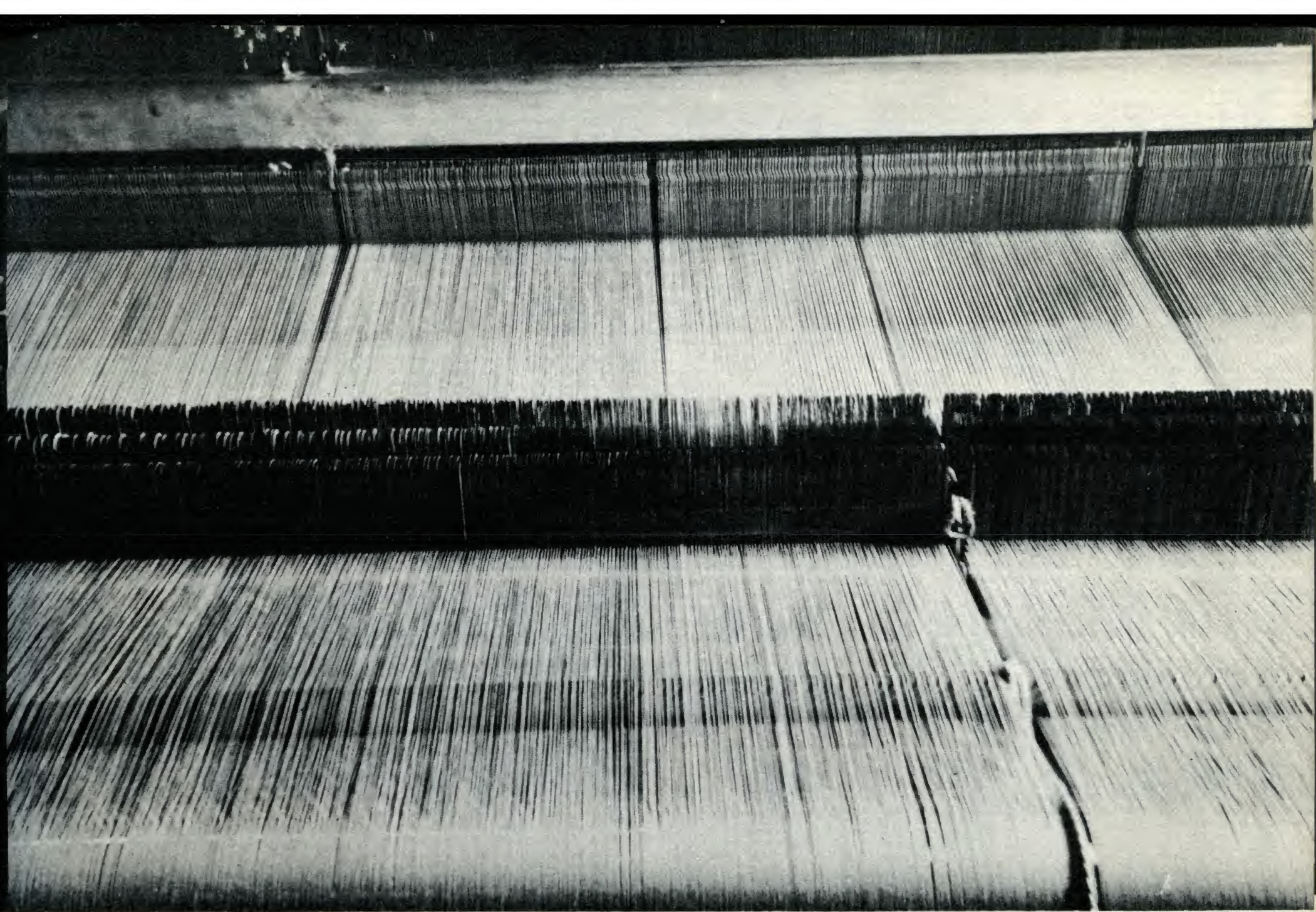
● *These large beams are placed on the "slasher" machine. Three of these "beams" are shown in the foreground, the "threads" running off them into the large machine.*



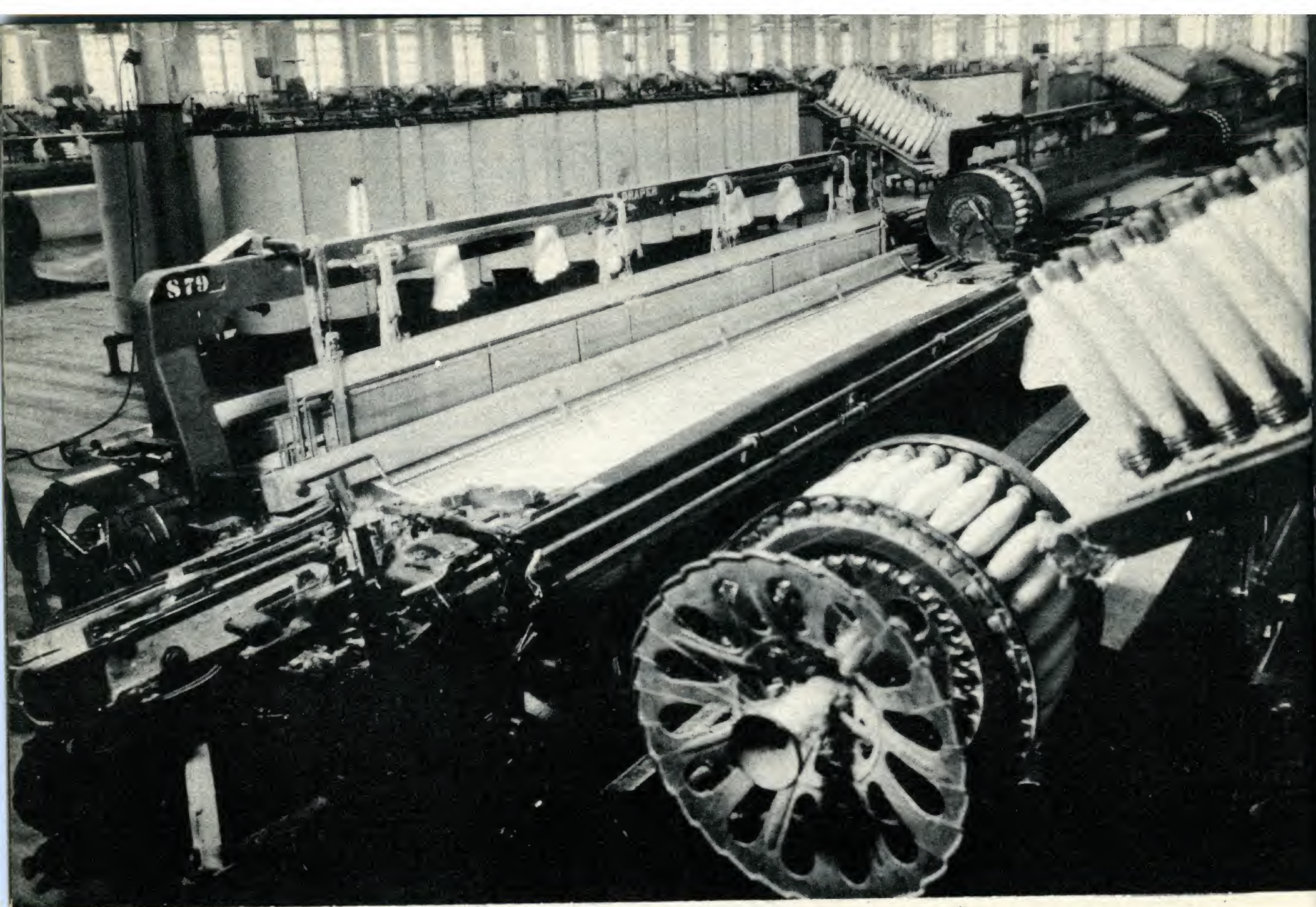
- *The same "threads" coming from the slasher. This machine covers every thread with a small protective coating to resist the action of the shuttle and to hold the threads in place during the weaving process.*



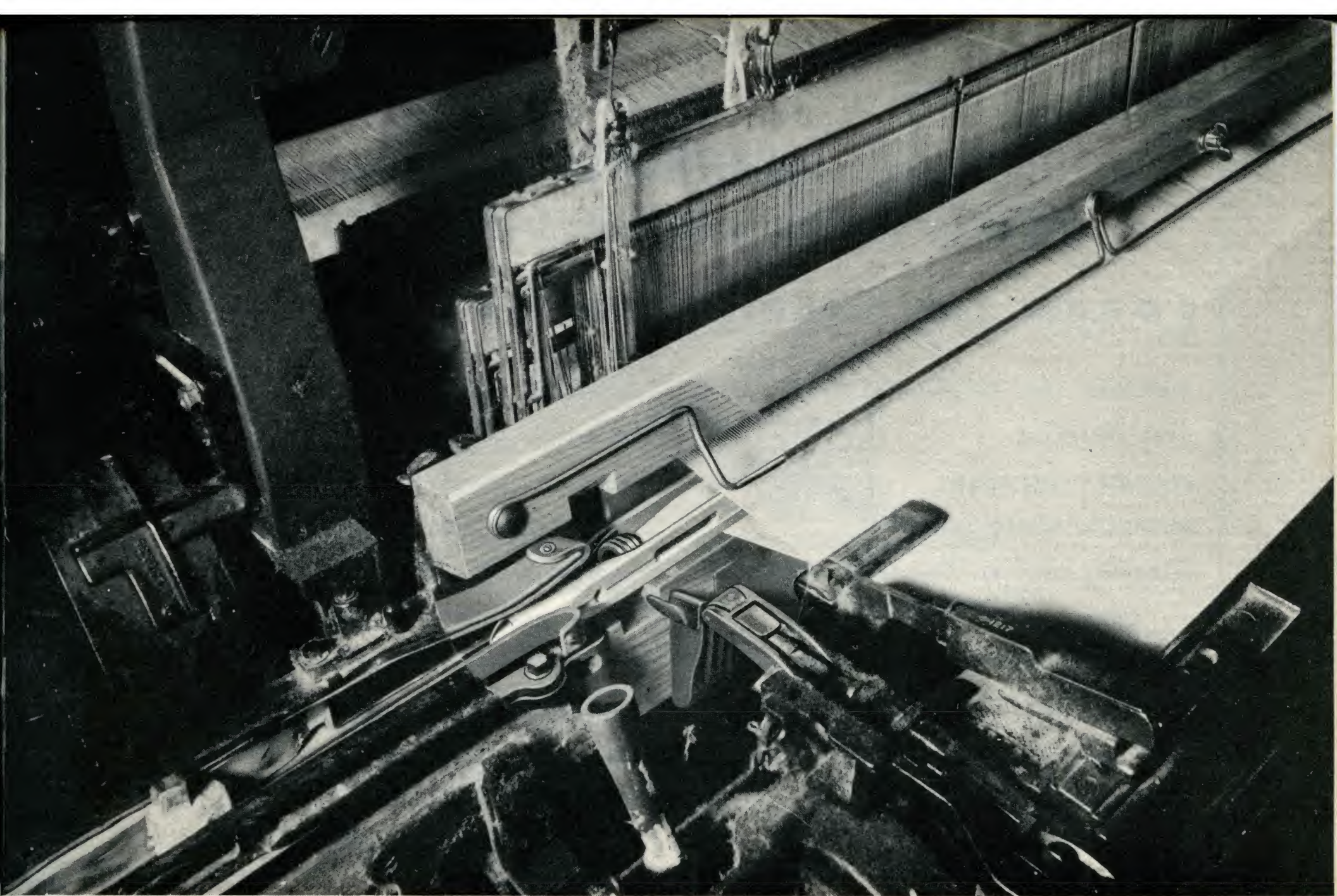
- *Here are the thousands of threads coming from the slasher and being wound onto another large beam. This beam will go onto the loom, providing the warp or lengthwise threads for the cloth.*



● *These are the same threads as shown in the preceding photo; here, however, they are going into the loom. The row of metal strips in the foreground is an automatic stop device which stops the loom instantly the moment a thread breaks.*



● This general photograph of the loom is taken from the side on which the woven cloth comes off. The beam and threads shown in the preceding illustrations are on the other side of the loom.



- *This close-up view of the loom has been emphasized to show the shuttle, the bobbin in the shuttle, and the manner in which the shuttle slides between the two rows of threads during the weaving process. The large white expanse at the right is the finished cloth.*

PEPPERELL

makes many different kinds of COTTON CLOTH

AMONG THE LEADERS ARE THE FOLLOWING:

PEPPERELL

LADY PEPPERELL

PEPPERELL FINE COUNT

PEPPERELL PEERESS PERCALE

PEPPERELL COLORED *Hem Sheets and Pillow
Cases*

LADY PEPPERELL COLORED *and Colored Hem
Sheets and Pillow Cases*

LADY PEPPERELL *Crib Sheets and Pillow Cases*

BABY PEPPERELL *Crib Blankets*

PEPPERELL *Part-Wool Blankets*

Sheets

Pillow Cases

Sheeting

PEPPERELL *All-Wool Blankets*

PEPPERELL PRINTS

PEPPERELL BROADCLOTHS

PEPPERELL RAYON FABRICS

PEPPERELL DRAPERIES

PEPPERELL PRINTED VOILES

PEPPERELL TURKISH TOWELS

PEPPERELL KITCHEN TOWELS & TOWELING

PEPPERELL COTTON SUITINGS

PEPPERELL SEERSUCKERS

PEPPERELL PRINTED LAWNS

HERE IS A PARTIAL LIST

of the many articles made from PEPPERELL FABRICS

APRONS (*Kitchen*)
BEDSPREADS (*Quilted*)
BEDSPREADS (*Printed*)
BIAS BINDING TAPE
BOYS' WASH SUITS
COSTUME SLIPS—*Pepperell Broadcloth*
DRESSES—*Women's and Girls' Print*
DRESSES—*Infants'*
GYM SUITS—*Boys' and Girls' Uniforms*
INFANTS' GOWNS AND SLEEPING GARMENTS
 (*Flannelette*)
IRONING-BOARD COVERS
MAIDS' UNIFORMS
MATTRESS COVERS
MATTRESS PADS (*Quilted*)
MIDDY BLOUSES
MISSES' SLIPS—*Pepperell and Lady Pepperell*
 Broadcloth
NIGHTGOWNS—*Hand made and embroidered*
NURSES' UNIFORMS

OVERALLS AND WORK PANTS
PAJAMAS—*Men's, Boys' and Youths'—Lord*
 Pepperell
PAJAMAS—*Women's and Girls' Print*
PLAY SUITS
RAINCOATS
RUBBER APRONS
RUBBER CRIB SHEETS
SEERSUCKER SUITS AND PANTS
SHIRTS—*Boys'*
SHIRTS—*Men's—Lord Pepperell*
SHORTS—*Boys'*
SHORTS—*Men's*
SHOWER CURTAINS
SPREADS—*Quilted—Printed*
SUEDE SHIRTS—*Work and Sport*
QUILTED TABLE PADDING
UNION SUITS—*Boys' and Youths'*
UNION SUITS—*Men's—Lord Pepperell*
WASH NECKTIES—*Men's and Boys'*



